

# Choosing and using Google Sites for ePortfolios at EIT

**Scott Casley, Stephanie Day**  
Educational Development Centre  
Eastern Institute of Technology, NZ

This report explains how and why Google Sites was chosen as an eportfolio management tool and provides a brief summary of a number of case studies where this approach was piloted at Eastern Institute of Technology (EIT) during 2013-14. The case studies were compiled after surveying the learners and teachers involved in selected pilot courses. The report attempts to identify factors that lead to the successful deployment and integration of Google Sites for eportfolios as an assessment tool in tertiary learning and teaching. The report concludes that Google Sites is recommended for use by students and staff for managing eportfolios as it is an easy to use, free and secure service enabling reflective practice, collaboration and lifelong learning.

Keywords: eportfolio, google sites, collaboration, lifelong learning, reflective practice, assessment

## Introduction

It is acknowledged that there is a strong case for using eportfolios for learning, assessment and professional practice (Jisc, 2014). There are a number of eportfolio tools available, ranging from those specifically designed for eportfolio use (Batson, 2011) to those that, while not designed specifically for eportfolios, meet all the criteria for use as an eportfolio (Barrett, 2014). The purpose of this report is not to assess the value of eportfolios per se but to find the best technology by which learners can manage an eportfolio. The main criteria in choosing the solution was that it had to offer the learner indefinite access by not being tied to enrolment in a Tertiary Education Organisation (TEO), be free or of minimum cost and be easy to use.

A cloud solution was identified as providing the best platform from which to manage an eportfolio. Software as a Service (SaaS) was seen as the ideal way to provide learners with an operating-system-agnostic software, anywhere-anytime access, and mobile integration (Velte, et al, 2009).

Criteria were developed to assess and compare a number of eportfolio management tools. From this analysis Google Sites was chosen and piloted in a number of courses. Each course took a slightly different approach to the deployment and use of Google Sites as an eportfolio tool.

Learners and teachers from each of the pilot courses were surveyed via an online questionnaire asking them about their experiences using Google Sites. This feedback will be used to highlight some critical success factors that will be used to inform future decisions regarding policies and procedures for the use of Google Sites as an eportfolio solution at EIT.

## Discussion

A core concept of the role of an eportfolio in learning is the ownership of the portfolio both in controlling access to the artefacts and keeping the portfolio as part of a lifelong and personalised learning process (Jisc, 2014). Therefore the core feature of the tool must be that the student owns the eportfolio tool beyond their time at the Tertiary Education Organisation (TEO). Typically, a TEO will provide the eportfolio tool during the course enrolment. When the student moves on the data has to be transferred to another tool or archived. The intent was to find a solution that would allow the student to create an eportfolio that they could manage indefinitely independent of the TEO. Ideally this tool would be low cost or free. Google Sites was identified early in the process but due diligence required further investigation into other possible options as discussed by Batson (2012) and Barrett (2014).

A set of criteria based on sound eportfolio practice informed by Jisc (2014), Barrett (2014) and Batson (2012) were developed and an assessment matrix used to define the preferred solution. The requirements criteria were assessed by a team of instructional designers and education technology experts at EIT. These were then included in a discussion document that was reviewed and approved by the EIT Managing Emerging Technologies (MELT) steering committee in 2012.

Two cloud services were chosen for further analysis: Google Sites and MyPortfolio. MyPortfolio is a

commercial offering of the (Open Source) Mahara eportfolio management tool. The learning technology team then rated each of the criteria using an arbitrary scale of 1 - 5 and produced the summary below:

### Functional requirements

1. Ownership and Lifelong Access – Winner: Google Sites
  - Google Sites allows personal customisation.
  - MyPortfolio is branded and associated with an organisation.
2. Storage and File Types – Winner: Google Sites
  - Google provides 15GB (in conjunction with Google Drive) and extra can be purchased. MyPortfolio is limited to 1GB.
  - Google Sites has strong integration with Google Docs and YouTube. These services do not contribute to storage limits.
3. Views and Permissions – Winner: Equal
4. Blogs/Journals – Winner: MyPortfolio
  - Google Sites 'Announcement' page type does not allow guest comments. However, Google's Blogger can be embedded in a page.
  - MyPortfolio has better blog commenting.
5. Social Tools – Winner: Google Sites
  - Google has Android and other mobile integration
6. Integration with Moodle – Winner: Equal
  - Google can link to Moodle without any MNet (required by MyPortfolio) configuration and has import and export functionality.
7. Portability – Winner: Equal
  - Both offer HTML export. See further discussion on Google Data Liberation tool below.
  - MyPortfolio offers Lightweight Extensible Authentication Protocol (LEAP) standard export function. However, LEAP is still not widely adopted.
8. Extra Features – Winner: Google Sites
  - Google has strong compatibility and integration with other Google services such as YouTube, Blogger and the Google+ mobile app. MyPortfolio has a limited integration with mobile apps and other systems.

### Non-functional requirements

1. Ease of Use – Winner: Google Sites
  - Google Sites is easy to learn and use whereas MyPortfolio was found to be more difficult to learn and use.
2. Cost – Winner: Google Sites
  - There is a small fee for MyPortfolio.
3. Community Support – Winner: Google Sites
  - Google has a huge online support community with the growing use of Google Apps for Education.
  - MyPortfolio has a strong online support but not as great as Google's.
4. Adoption – Winner: Google Sites
  - No statistics available for MyPortfolio usage whereas Google reports millions of users are using Google Sites.
5. Installation and Maintenance Requirements – Winner: Equal
6. Security – Winner: Google Sites
  - See discussion around security below.
7. Terms of Service – Winner: Equal

This evaluation highlighted Google Sites as the preferred eportfolio solution. The ability to own the site indefinitely, separately from the institution was seen as the defining criteria. Another important factor was that Google Sites is free to use whereas MyPortfolio would either cost the student or the TEO. The evaluation also considered the fact that Google has a number of other applications that are very useful to the student including Google Drive, YouTube and Blogger accounts all under the one sign-in. Other research (Bolliger & Shepherd, 2010; Barrett, 2014) has also shown Google Sites to be a preferred option for eportfolios.

One of the main concerns in using cloud services is around security (Velte, et al, 2009). The data security provided by Google is described clearly in their document 'Data and security - Data Centers' (2014) where they explain the great lengths they go to secure data centres.

Using Google Drive in association with Google Sites introduces the possibility of storing gigabytes of data that can be accessed anywhere, anytime, by many devices and all commercial operating systems. It should also be noted that the amount of storage available free to Google users (15GB) is also greater than that available from a typical TEO file system.

Users of Google Sites also have the option to move their data if required using the Data Liberation Tool ("Google Sites Liberation", 2009). This tool allows the user to download the whole site as a standard HTML website. The ability to move the whole site is another level of security for the user. This ability alleviates some of the risk involved in the use of cloud services, including possible changes in terms of service and cessation of the service offering (Velte, et al, 2009).

### **Google Sites deployment and use**

In 2012, after a discussion with the Tairāwhiti Education Technology Advisor, the tutor teaching the Certificate in Applied Professional Skills Level 1 (CAPS) decided to replace the student's traditional hard copy photographic portfolio with a Google Site eportfolio. This was seen primarily as a measure to reduce the cost of printing photos. During normal classes the tutor took photos of students at work and uploaded them to Google Photos where the students accessed and added them to their eportfolio. The students were also required to add their personal reflections on the activities from the photos. During the course the tutor used the eportfolio to monitor the student's activity. Part of the final course assessment was based on the photos and quality of reflection. This system was then adopted by the CAPS programme in Taradale and used successfully ever since.

In 2013, a number of other courses were chosen to trial Google Sites for eportfolio management. These included: the Bachelor of Nursing Mental Health and Clinical Practice courses; the Diploma in Tertiary Learning and Teaching Professional Portfolio; the Bachelor of Teaching Primary and the Certificate in Music. Each deployment and use was slightly different, depending on course requirements. The DTLT Professional Portfolio course, for example, focused on creating and maintaining a portfolio of learning and made up 100% of the final assessment, whereas the Certificate in Music students used Google Sites as a simple journal which was not assessed. The level of support given by the learning technologists both from the Educational Development Centre (EDC) and Library Services also varied due to a number of factors including: how much time could be spared in class teaching the students about Google Sites and eportfolios and the level of assessment associated with the eportfolio.

### **Evaluation**

A questionnaire was developed using Likert scale type questions asking learners and teachers to rate their experience using Google Sites. The questions asked the responder to assess or give their opinion on: perceived ease of use; the level of support received when setting up and using Google Sites; the perceived educational value in using an eportfolio and whether Google Sites would continue to be used in the future. Approximately 600 emails were sent to both students and staff from seven programmes. A total of 45 valid responses were received: students ( $n=34$ ) and staff ( $n=11$ ). No student responses were received from the CAPS programme.

From a total 45 respondents, 23 (51%) rated the setting up of a Google Site as Very Easy or Easy with 10 (21.3%) saying that they thought it was Difficult to Very Difficult. A total of 28 (62%) respondents found Google Sites Easy to Very Easy to use once set up with only six (13%) finding it Difficult or Very Difficult. This positive result suggests that Google Sites is easy to set up and use for most people. 11 students (32%) responded that they will continue using a Google Site eportfolio after the course finished with 17 (50%) saying they didn't know. Only 6 (18%) said they would not continue using a Google Site eportfolio. This result indicates that students value ongoing reflective practice through the use of eportfolios and is encouraging. However, a longitudinal study is required to confirm continuing use of Google Sites.

The results were broken down further into their respective courses to see if there was any correlation between the way the Google Sites were deployed and used versus the questionnaire results.

In the Bachelor of Nursing (Mental Health) 39% ( $n=13$ ) responded that setting up a Google Site was Easy to Very Easy. Once they had set up their Google Site 67% responded that it was Easy to Very Easy to manage their eportfolio. It was noted that one of the lecturers was not technically proficient and did not offer much technical support initially. This has been identified as a critical success factor in the deployment of Google Sites. The teachers have to be able to explain how to set up the site or have a learning technologist or learning support team

run a training session with the group. Despite the lack of technical knowledge, feedback from the lecturers indicated that they thought the project was successful and will continue to use Google Sites as an eportfolio management tool.

In the Bachelor of Nursing (Clinical Practice) 64 % of students ( $n=11$ ) rated their experience of setting up their eportfolio as Easy to Neutral. This figure improved when asked about *using* Google Sites with 27% saying it was Very Easy and 36% Easy to Neutral. The lecturers in this course rated the use of Google Sites as an eportfolio tool very highly and will continue to use it. The positive result here can be attributed to the teaching staff being very knowledgeable in Google Site eportfolios as some of them had just completed the DTLT Professional Portfolio course.

Students from the Diploma in Tertiary Learning and Teaching (Professional Portfolio) responded positively to the use of Google Sites. 66% ( $n=9$ ) found it Easy to Very Easy when setting up the portfolio. 70% said they would keep using their Google Site ePortfolio after the course had finished and 60% said they would use it after they graduate. These results reflect the fact that the course required the use of an eportfolio for 100% of assessment and teaching staff had a high level of technical ability and experience with reflective practice.

## Conclusion

This report has shown that Google Sites can be used successfully, and at no cost to staff, students or the TEO, for the management of eportfolios. The service is secure and the data portable. The eportfolio is owned by the learner indefinitely thus encouraging lifelong learning and reflective practice. This report indicates that there is intent to continue using an eportfolio as part of a lifelong learning strategy but a longitudinal study is required to validate this hypothesis.

Critical success factors for the deployment and use of Google Sites were identified and include: using the eportfolio as an assessment; setting aside class time early in the course to have trained learning support staff teach students how to use Google Sites and the rationale behind the use of eportfolios; teaching staff encouraging the use of, and providing feedback on, student's eportfolios during the course.

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**Contact author:** Scott Casley, [scasley@eit.ac.nz](mailto:scasley@eit.ac.nz); Stephanie Day, [sday@eit.ac.nz](mailto:sday@eit.ac.nz)

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