

Defining an e-Portfolio

There are three areas of definition:

- A. **The Prime Directives** – ie the critical definitions within which to work,
- B. **Essential features** – which flesh out the above,
- C. **Teaching & Learning** – which identify the primary functions of (B).

The Prime Directives for a 'thin' e-Portfolio:

1. It is portable: It cannot be located in any one institution or embedded within a proprietary VLE.
2. It is personal: It is 'owned' by the user and is customisable to the user's age, stage and style.
3. It is generic: It is not modelled on any particular curriculum delivery system nor content.
4. It is Web2.0: It should be compliant with all generic formats within the application.
5. It is MIS-free: It is not 'hard-wired' to any institution's MIS infrastructure.
6. It is 'lite': It is not a permanent repository of all of a user's files, rather a 'transit camp'.
7. It is lifelong: Ownership must be maintainable as a continuity, '5-95'.
8. It is lifewide: It is capable of being used by all ages and abilities through a wide range of assistive templates.
9. It is accessible: It must recognise common standards of accessibility in terms of both outputs and inputs.
10. It is credible: Evidence of any Summative Assessment must be linked to a secure repository ie the awarding body or a central MIAP/Minerva archive.

1. It is portable: *It cannot be located in any one institution or embedded within a proprietary VLE.*

The fundamental purpose of having an e-Portfolio is that the owner can ‘take it from place to place’, using the metaphor of an old ‘paper’ portfolio. In terms of ‘portability’ we should really be talking of access from any location such as a new school, as a replacement for the UCAS forms or for a job interview for instance.

We can therefore consider portability as being ‘horizontal’ as when a pupil whilst within a Key Stage changes school or where, in the 14-19 curriculum, a student needs to share the portfolio across the curricula of two or more institutions at the same time.

Secondly, the e-Portfolio must be considered as moving ‘vertically’ eg from Primary school to Secondary, and on to FE/HE, job-seeking, employments and retirement. This raises another issue, that of progression or maturity. Obviously the interface for a 5yr-old needs to be very different to that of an adult – see section entitled ‘lifelong’ below.

2. It is personal: *It is ‘owned’ by the user and is customisable to the user’s age, stage and style.*

It is essential that the e-Portfolio is seen as ‘owned’ by the owner and not just viewed as a compulsory or academic exercise as a substitute for a UCAS application or a short-term ‘Burgundy File’. Ideally, if established at KS1/2 ownership can more easily be established as a place of proud celebration of a child’s work. By KS3 the pupils will have learnt to personalise it using colours and templates which reflect the projected image of the young student. The young student is able to select their own group of contacts for e-safe blogging and links to external repositories can be established.

3. It is generic: *It is not modelled on any particular curriculum delivery system nor content.*

Most of the e-Portfolios established by universities, employers, adult learning institutions or work-placement agencies are structured for a single purpose or a limited number of related purposes. Some of the best are designed as a curriculum delivery scaffold with guidance notes and even structured CV outlines and CPD formats. Not so for a generic system. Teachers do not all expect the same layouts or styles of presentation. Different subjects produce different output formats and any group of students could produce myriad combinations of subjects. Not all students learn in the same way nor choose to present their artefacts in similar formats. It is essential, therefore, that the e-Portfolio is flexible enough to meet all these differing forms of presentation.

4. It is Web2.0: *It should be compliant with all generic formats within the application.*

Perhaps an over-simplification of terms. Suffice it to say that the e-Portfolio should be capable of using any Web2.0 tools and content and, furthermore, be readily

accommodating of the ‘Symphonic’ or Web3.0 intuitive tools. Already we are seeing examples such as ‘Autology’ which are creating a whole new dimension to study skills. By ensuring that the e-Portfolio is Web2.0 compliant we should at least be ready for the new generation of intuitive software. Another aspect of Web2.0 is the increasing use of open source and freeware recognising standard file formats. This, of course, is essential if we are to encourage the potential for multiple home users (siblings) accessing VLE and e-Portfolio files from the school’s network, using ‘freeware’ on the new range of sub-£200 laptops whilst at home.

5. It is MIS-free: *It is not ‘hard-wired’ to any institution’s MIS infrastructure.*

The successful take-up of VLEs in schools is probably due to the requirements of LAs to both collect and disseminate pupil data from and to schools. The topology for the effective transmission of such data has therefore been in place, now, for some years and administrators are well used to the technology which has been steadily improving during that time. Similarly, on-line UCAS applications processing has been accepted for almost as many years.

On to this existing infrastructure, many schools and LAs appear to have ‘bolted on’ their school’s VLE and, naturally enough, portions of the whole data-set have therefore been readily available for linkage to a VLE’s internal e-Portfolio system. There are obvious advantages to such a symbiotic arrangement, principally the concept of ‘write once, read many’ or WORM. And such a setup is the essential basis for a well constructed school’s Personal Learning Environment or PLE. However, a close-coupled arrangement of an institution-based e-Portfolio can immediately break down when a child moves from one school to another unless very sophisticated interoperability connections have been developed.

If the e-Portfolio is to be truly ‘owned’ by the pupil, the setup or layout of the e-Portfolio will vary from child to child, no two e-portfolios having the same format, page structure or content. The connectivity of data, therefore, would be impossible to configure by any technician for every separate individual in a school. The choice appears to be simple, either a sterile and formally structured system as seen in many university configurations or a child-friendly ‘private space’ where the pupil feels in charge of the whole presentational format.

6. It is ‘lite’: *It is not a permanent repository of all of a user’s files, rather a ‘transit camp’.*

The e-Portfolio has several purposes: to celebrate, to inform, to share and reflect etc. However, it should not be used as the total storage space for all of one’s artefacts. The great mass of a pupil’s schoolwork will, inevitably, be held on the school’s server and, according to how good the school’s archiving system is and how well students are taught about ‘good housekeeping’, half-finished essays or spelling tests may remain on the system for many years. Other more valuable artefacts may be stored on a PC at home, on DVDs, flash-cards or USB sticks. Yet other storage facilities might include YouTube or Flickr etc.

Obviously, as the whole of society is becoming more digitally aware, vast amounts of material, academic, social, familial and sentimental are being generated and people need to educate themselves in regard to storage principles. Independent repositories may come and go, YouTube might be made unavailable, even blogging servers may be closed down if (at the present time) the Italian government has its way. And, of course, we are well aware that certain governments maintain rigid controls over what people may say or think. The e-Portfolio, therefore, should not be the prime centre for data storage, but should be, like a shop window, changed or updated regularly from products available in the stock-room. Old stock, past its sell-by date should be removed, new features to be displayed may need a totally new background or layout – all of which can be easily updated within the e-Portfolio.

7. It is lifelong: *Ownership must be maintainable as a continuity, '5-95'.*

Although written about by some for many years (cf Helen Barrett) it seems strange that few e-Portfolio developers have understood the principle that the e-Portfolio is intended to last the owner for their lifetime. Far too many products available at the moment are restricted to the institution providing the service. Even in schools it is not appreciated how much mobility actually takes place. (I, myself, attended 6 different schools in the first 5 years of my education.) Certainly, as the child moves upward through the various Key Stages and on to FE/VET/HE or apprenticeship schemes, the e-Portfolio needs to move with the student.

We are also repeatedly warned that '*a job for life*' will become increasingly less common and that workers will have to understand the need for re-training or updating skills on a regular basis. The government is well aware of the need to educate a national underclass of the 'sub-literate'. Employers, too, are more and more recognising their responsibilities to provide CPD and even preparation for redeployment. The breaking down of national barriers, the opening up of Europe and increased access to transport have all created a fluidity in the employment marketplace. And lastly, but not less significantly, there is a steadily growing body of post full-time workers or those enjoying the freedoms of retirement who still have many years of active leisure time before them.

In all of the above scenarios, the one common factor, in this digital age, is the ability of an e-Portfolio to enhance the presentation of one's self to others. Instead of owning multiple e-Portfolios for different purposes, in different configurations and at different times, the obvious solution is to maintain one portfolio throughout life, '5-95'.

8. It is lifewide: *It is capable of being used by all ages and abilities through a wide range of assistive templates.*

In the UK at the moment, the e-Portfolio concept is firmly driven by the needs and extensive research of the university community. This totality, if all were using e-Portfolios, still only numbers 5% of the population for only 5% of their lifetimes. So, what of the vast majority of people of school age, not in higher education and those beyond the age of 18? Should the academic community really be the main drivers for the use of e-Portfolios?

I am well aware of the significant body of students and adults who have a whole range of special needs and who need a communication system that allows the socially disadvantaged, the lonely or even those who choose home-schooling to represent themselves through the medium of an e-Portfolio. This may be for social collaboration, school activities, in order to assist self-esteem, for training programs or job applications etc.

The e-Portfolio can be accessed using the simplest of templates providing enhanced readability and simple language in order to meet the needs of many, both youngsters, people in work and the elderly who cannot manage the maintenance of their own website or blogs.

9. It is accessible: *It must recognise common standards of accessibility in terms of both outputs and inputs.*

As noted above, appropriate fonts and colour schemes are essential and need to be adjusted to an individual's requirements. Where special needs clients already use a computer there are probably in place the peripherals to negotiate, view and listen to simple web pages.

10. It is credible: *Evidence of any Summative Assessment must be linked to a secure repository ie the awarding body or a central MIAP/Minerva archive.*

One of the primary functions of the e-Portfolio has always been that of presenting one's CV or academic credentials on-line. However, the real potential for forgery must not be ignored. Even a bright 10-yr old could scan in an impressive certificate and change the name or grades. It is therefore necessary to provide a secure system of credible evidences.

Since the Bologna Process was established in 1999 there has been only moderate progress in establishing levels of digital security which requires compliance with Europass decision 2241/2004/EC which indicates the need for Diploma Supplements to be issued electronically and in a manner that is capable of being authenticated, and also compliance with EU Digital Signature Directive governing electronically signed documents.

In the UK the MIAP/Minerva archive has been held up as a central register of all awarding bodies and is presently involved in providing such for the emerging 14-19 diplomas. However, an alternative scheme which enables the awarding body to provide a digitally secure certificate is provided by the Dublin-based company, Digitary. Whether this system would adapt to every GCSE or C&G certificate is another matter beyond the immediate scope of e-Portfolios.