

Foreword

This is the first book to be published with an entire focus on the ePortfolio. It will not be the last, because it comes at a very propitious moment when important forces are converging—forces that are causing us to re-examine where learning takes place and how it could be assessed, how work and knowledge should be managed, who we really are as we present ourselves to the world, how we use technology for teaching and learning. This thing we call the ePortfolio is a flashpoint at the convergence of imperatives and opportunities in the management of learning for human and social capital development. And it is a great source of inspiration as we re-evaluate our hopes and expectations for eLearning and for lifetime learning policies.

Why should it be that, when we combine two familiar words—electronic and portfolio—paradigms shift? In the field of education and training, we are relatively familiar with portfolio assessment of learning, with reflective teaching and learning, with self-assessment and self-directed learning, project learning, digital storytelling, technology-assisted evaluation, competence-based assessment, marking rubrics, prior learning assessment, blended learning, learning outcomes, evaluation practices, lifelong and lifewide learning. In the field of information and communication technologies, we are relatively aware of privacy concerns, access issues, new media and media convergence, eGovernment, eLearning, eCommerce, social networking, blogging, and podcasting. In the field of career and human resources management, we are relatively committed to skills gap analysis and targeted training, return on investment in learning systems, recognition of foreign credentials, the value of personal skills inventories as career transition and bridging mechanisms, skills outsourcing, and niche marketing. In public policy areas, we remain concerned about youth who are non-completers of formal education, adult illiteracy rates, the over-credentialing of the workplace, skills shortages, immigration practices, allocation of increasingly scarce resources. The power of the ePortfolio, in my view, is that it combines the best of all we know from all these concerns and commitments put towards the new promotion and management of learning for the benefit of individuals and society at large.

Well, that is the theory at least. For several years now, ePortophiles like me and Ali Jafari and Serge Ravet have been hypothesizing the many and varied benefits of ePortfolios for individuals, institutions, business enterprises, and entire nations. This book is important because it moves us beyond speculation with research and practical experience. It is establishing critical benchmarks in the application of ePortfolios, largely in the context of formal education, but moving as well into the workforce and workplace.

Here is where I feel compelled to state clearly that an ePortfolio must have the capacity to include and place value on all forms of learning: formal, informal, non-formal, accidental, and incidental. In the workplace, then, an ePortfolio can accommodate work experience and non-formal training. And in the broader sense, all ePortfolios should incorporate learning from family and community responsibilities, reading and travel, troubles, and triumphs. That is what Dr. Jafari's next book will likely be about.

Recognizing the potential of the ePortfolio, there are two organizations promoting two important missions. The Learning Innovations Forum d'Innovations d'Apprentissage (LIIfA) in the Americas, together with the European Institute for E-Learning (EIfEL) in the European Union, actively advocate for:

- an ePortfolio for every citizen by 2010, and
- one ePortfolio for life.

Thanks to this book, more and more people will understand what we are talking about. We early adopters are still faced with very basic questions: *What IS an ePortfolio? What are you talking about?* This field is so exciting to us because our understanding of ePortfolios changes and improves at a very rapid rate—perhaps because of the international nature of the communication and commitment to ePortfolios, the resulting leapfrogging of concepts and applications between the Americas, Europe, and Australia.

It does feel like a family, and that is a good thing. In my view, we have a limited window to get this ePortfolio thing right. We did not get eLearning right. In encouraging and supporting “a thousand flowers to bloom,” we have ended up with species of products and services that cannot and do not exist in the same ecosystem. And the end users—the learners and the purchasers—are the ones who pay for that inconsistency in approach and quality. The ePortfolio is so important that we cannot afford to have early adopters face the same problems and challenges that we have faced with eLearning. For that reason, it is critically important that we welcome everyone into the ePortfolio community. By continuous sharing of ideas and issues, we have been able to inculcate the importance of interoperability and transportability in ePortfolio systems—“one ePortfolio for life.” We have opened lines of communication and collaboration by emphasizing that there is a giant new “industry” developing, with room and a role for anyone who is interested. We are working on promoting the value of quality standards within a competitive business environment, on developing systems that involve the agency that receives and processes individual ePortfolios, on meeting the needs of target audiences like Aboriginal peoples, seniors, healthcare workers, skilled immigrants, early school leavers ... working until “every citizen has an ePortfolio.”

Here I feel compelled to be clear that the word “ePortfolio” has almost become a code word for a variety of very important concepts: the digital archive from which a purpose-driven ePortfolio can be created, the digital identity that links us to our own learning and to others, the management of time past, present, and future; social networking and social capital development; human capital development and management. It may go without saying, but we need to respect and promote the notion that an ePortfolio can be one of many different things depending on audience perspective and purpose. There can be no ePigeonhole for ePortfolios!

In my view, the ePortfolio is the tool to bring about the radical transformation of learning systems that futurists have been advocating for. We have been adamantly writing and speaking about the necessity to rethink how learning is delivered, to whom and by whom, how important non-formal and informal learning are. The ePortfolio may be the tool that we have been waiting for.

After considerable research and reflection, I have concluded that the ePortfolio represents the single greatest innovation in the use of learning technologies and transformation tools for the following reasons:

1. **The ePortfolio is eLearning at its Finest:** the best, least complicated, most appropriate use of ICT for learning and learning management on an individual and a societal basis.
2. **It is an Elegant Use of Inelegant Technologies:** using complex technological developments in simple, practical ways. Unlike most eLearning, the ePortfolio tool is typically user friendly and appealing with great and immediate utility.
3. **An ePortfolio System Can Do What Computers Do Best:** sorting and matching. It increases effectiveness and efficiency in learning assessment, staff recruitment and advancement, project implementation. It is a critical knowledge management tool in the digital age.
4. **It is a Learning Leveler:** it can be made accessible to each and every person regardless of skill levels and personal assets, and there is seldom a substantial cost involved. An ePortfolio can be as ubiquitous and equalizing as the Internet itself.
5. **It Focuses on “The Positive”:** archiving and showcasing what a person knows and can do. The outcome of an ePortfolio is “look what I’ve achieved!” Rather than being deficit based, it is asset based.

6. **It Can Become a Complete Description of a Person's "Human Capital":** acquired skills and knowledge, including and going far beyond those represented by formal credentials. An ePortfolio incorporates learning from formal, informal, non-formal, accidental, and incidental learning environments.
7. **It is a More Accurate Description of a Person's "Human Capital":** being competency based, it does not assume or imply competence or use proxies for learning.
8. **For Teaching Purposes, It Builds on Best Practices in Designing, Delivering, and Assessing Skills and Knowledge:** authentic assessment is a cornerstone of the ePortfolio.
9. **For Learning Purposes, It is Appropriate for All Levels and Types of Learners:** it builds on best practices in how people learn and shows positive change in the acquisition of new skills and knowledge. Reflective learning is another cornerstone of the ePortfolio process.
10. **It is Equally Adoptable in Both Formal and Informal Learning Situations:** teachers and instructors can use it for alternative assessment of learning aimed at accreditation. Lifelong learners can use it to understand and record ongoing acquisition of insight and competencies.
11. **It is Endlessly Scalable:** from the individual to an entire business or nation. This is in part because of interoperable technologies, and in part because of common learning and learning management needs at all levels.
12. **It Can be Both Deeply Private and Universally Accessed:** while the content of an ePortfolio is the sole property of the person or body creating it, the ePortfolio can be shared by them in many controlled ways or podcast to the world.
13. **It is a Comfortable Means of Communication Between Learners and Teachers/Mentors/Advisors and Friends:** it is exploratory and constructivist, rather than definitive and judgmental.
14. **It Can be a Critical Transformation Tool for Learning Systems:** to outcomes-based, learning-centered learning. It puts accountability for learning into the hands of the learner.
15. **It Enhances Creativity and Problem Solving:** with the ePortfolio, there are many ways to explore and present learning.
16. **It Can be, at One Time, Both a Teaching and Learning Tool:** with the ePortfolio creator both learning through reflection and teaching through sharing the acquired insight and competencies.
17. **The ePortfolio, as a Teaching/Learning Tool, Creates a Unique Balance Between Structured and Unstructured Learning:** the tool guides but does not limit learners.
18. **It Has Endless Utility to Individuals and Those They Engage with:** people of all ages can use it as a personal knowledge management tool, recording achievements, targeting new learning requirements, even making application for advance standing in formal learning environments. Employers can use it to understand and manage an entire workforce of any size, for identifying human resource needs and best utilizing human capital. Communities of place, interest, or practice can inventory entire competency banks and human capital resources for development and marketing purposes.

As you read this book, see if you do not agree with me. This book is important because it will launch new conversations and debates, generate new teams and research themes, support policy and practice initiatives.

Moving beyond hype and conjecture, I will offer my final advice. You ask, if we want to explore and promote the ePortfolio, *Where do we start?* With professional educators. Until and unless teachers, instructors, professors, and administrators have their own ePortfolios, they will not have the credibility or commitment to expect learners to develop and use ePortfolios. They—you—are the audience for this book, and I hope you are either inspired or compelled to create your own digital archive, your ePortfolio presentation of yourself, your own digital identity.

Dr. Kathryn Chang Barker

President, FuturEd Consulting Education Futurists, Inc., Canada

Chair, Learning Innovations Forum d'Innovations d'Apprentissage, Canada

ePortfolio

* * *

As this book demonstrates through scientific studies and informed testimonies, the ePortfolio is currently effecting a quiet revolution in the world of learning. It is clear that the exciting initiatives being implemented in the higher education sector will be of relevance to other educational sectors, the world of work, and the community at large. The ability to connect different learning episodes (diachronic) and contexts at any given time (synchronic) is one of the main challenges ahead of us if we wish to reap all the benefits promised by the ePortfolio and revealed in the different chapters of this book. Interoperability, technical and organizational, will be critical to ensure that the ePortfolio plays the role of lifelong learning companion.

It has been estimated that by 2010 almost half of new jobs created will require tertiary-level education and almost 40% upper-secondary education. This will demand re-thinking education and training: how and where people learn, the roles of learners and those who support them, and the tools that will promote optimal learning. We feel that this re-think will mean an end to the “compartmentalization” of learning. The knowledge society will recognize the organic link between the learning citizen, the learning organization, and the learning territory: an open system of learning that embraces formal and informal, professional and cultural learning in the same dynamic.

Those involved in learning and training are looking for tools to transform the learning experience, to enable learners to become autonomous and enjoy a truly personalized development path. It is our view that the ePortfolio is one of the most significant tools for achieving this goal at all levels. It will support the realization of “portfolio careers” and act as an instrument for social inclusion, allowing all to “tell their story” and celebrate their achievements.

This is why, back in 2003, I suggested fixing as an objective for 2010 “*ePortfolio for all*.” This was not just a question of numbers (x millions of people with an ePortfolio), but of creating the conditions for a continuum in the learning space where someone starting an ePortfolio at school, college, university, or work would not have to throw away the investment of several years when moving from one episode of life to another one. Even if in 2010 every citizen does not have an ePortfolio (which is very likely!), we should like to live in a world where every one of us is *entitled* to have an ePortfolio and is able to use it during our lifelong and lifewide learning journey. The ePortfolio will be our faithful digital companion, reflecting our digital identity and supporting our learning, and enabling transactions with others in a variety of social networks.

The *ePortfolio for all* campaign is a catalyst for change. It is about quality, not quantity. For example, while ePortfolios are already being used by job seekers, very few employers are *ePortfolio-aware*. Human resource professionals, familiar with the use of résumés to select candidates, have yet to progress to the analysis and evaluation of ePortfolios in their recruitment procedures. Even fewer have introduced ePortfolios as a tool to support learning, career planning, and development in-house. Greater progress is being made by professional bodies with mandatory continuing professional development, as a growing number are using ePortfolios to support CPD, and in some cases, like the Royal College of Nursing in the UK, using them for professional re-accreditation. ePortfolios are tools for the reflective practitioners *extracting learning from the workplace*, sharing their reflections with their peers to contribute to the development of learning communities.

Diachronic continuity, from kindergarten to school, college, university, and the world of work, and synchronic continuity of the learning landscape (Tosh & Werdmuller, 2004) through the different learning environments, from the personal learning space to the different learning communities, learning organizations, cities, and regions, will only be possible through a voluntary and concerted effort. Learning is about “... establishing new premises (i.e., paradigms, schemata, mental models, or perspectives) to override the existing ones” (Nonaka & Takeuchi, 1995). This applies to individuals, communities, organizations, as well as regions.

Informed policies are required, and we need a roadmap for the actions to engage across sectors, organizations, and countries. We need to demonstrate how the ePortfolio is a component key to today’s top policy agendas—for lifelong learning, for the development of literacy and citizenship, for transparency of qualifications and workers’ mobility in an increasingly global world, as well as continuing professional development.

If we look at Europe, we can see how regional, national, and European policies are critical factors in creating the conditions for extensive ePortfolio development that goes beyond the boundaries of classrooms, organizations or sectors. The most ambitious instance is Wales, now a politically independent province of the UK, which is offering an ePortfolio to all three million Welsh citizens. This initiative is an element of the vision of Wales as a *learning country*, providing every citizen with the infrastructure to record and exploit their learning achievements. Launched in November 2004, Careers Wales Online now has more than 80,000 regular users. The Welsh initiative sits alongside a series of other initiatives in the UK; for example, the ePortfolio is one of the top priorities of England’s integrated eStrategy. I am very pleased to note that we are now moving away from explicit and separate *eLearning strategies* to *eStrategies for learning*. This is certainly more in line with EIFEL’s vision of eLearning being the eTransformation of all the processes linked to all forms of learning, and not a separate entity.

Wales and England are not alone. Last September, the Computing Austrian Society had a meeting with representatives from different ministries to develop an eLearning strategy (which is in fact an eStrategy for learning) and decided to place the ePortfolio at the heart of this new eStrategy. Other countries, such as The Netherlands, are more advanced in their implementation of ePortfolios across sectors. The Dutch play a leading role in the initiatives in the field of human resources, in particular through the European chapter of HR-XML, the human resources standardization body which has published several specifications relevant to ePortfolios in the field of work, such as HR-Résumé, a specification that would allow an ePortfolio to be published on online recruitment services, when supporting this industry format.

While European countries are moving forward, some faster than others, Europe as a whole is also moving forward. Since 2000, national education policies, although still independent, are coordinated through the European Union by way of a series of resolutions bearing the name of the cities where they have been adopted: Bologna (common higher education area), Maastricht (Common Qualification Framework). The issues at stake are transparency, quality, recognition of informal and non-formal learning, and mobility of learners and workers as Europe responds to twenty-first century challenges.

One of the key instruments in meeting this challenge is Europass¹, an umbrella name given to a coordinated portfolio of documents, in a standardized format, for presenting and exchanging information about learners’ history. The objective is to improve communication between job applicants and employers, regardless of borders, and help citizens make their qualifications and competencies clearly and easily understood throughout Europe. Europass should facilitate occupational mobility—between countries and sectors—and promote and add value to mobility in education and training. The European Commission estimates that three million citizens will use Europass by 2010.

The relation between an ePortfolio and Europass is twofold:

- **Europass Documents Can be Built from the Contents of an ePortfolio:** for example, the European CV could be built from the collection of information collected in an ePortfolio, or a certificate could be awarded from the assessment of an ePortfolio, generating a certificate supplement.

- **Europass Documents can Feed ePortfolio Repositories:** for example, a Diploma Supplement issued by a university, which is in fact a transcript of study in higher education, could be “posted” (or a reference to the transcript held by the university) on the ePortfolio of the students and could then be used by the prospective worker to feed in the CV sent to potential employers (the CV being the front page of the job-application ePortfolio).

By the end of 2005, every university will be obliged to deliver a Diploma Supplement to every student who requests one. Paper based initially, it is clear that as the initial source of information is based in information systems, paper transcripts will soon be replaced by the transfer of records from one establishment to another—for example, for registering at another university or to extract the information relevant to a résumé placed on the Internet to find a job.

In order to achieve this goal, it is critical to insure the interoperability of the records published by the different universities. The European Commission is co-funding TELCERT, a research project dedicated to measuring the conformance of the information produced or consumed by learning systems against specifications, building (almost) automatically test suites from initial specifications and standards. Those who attended the first ePortfolio ‘plugfest’ during the 3rd International E-Portfolio Conference at Cambridge (UK) were able to witness that six of the ePortfolio systems present were interoperable using relevant standards, such as UK-LeaP or (parts of) IMS-ePortfolio. We hope that we will soon be able to demonstrate that ePortfolio systems are conformant to HR-XML specifications and Europass specifications.

I believe that interoperability is critical for supporting much of the most interesting practice happening at the crossroads of different contexts in a lifelong and lifewide continuum. Interoperability is not only designed to make things easier for administrators of organizational and corporate information systems. Indeed, interoperability is also intended for us as ePortfolio owners who, being in charge of managing and administering our personal information systems, want a central location from which we can decide who can see what personal information about us. This information might be distributed, and in the near future reside on my personal computer (or server) in a peer-to-peer environment, but what I need is a central location from where all the information is aggregated and accessed under my control.

Here are seven things that I hope my ePortfolio—or let’s call it my personal, lifelong, and lifewide learning landscape—will be able to do, and for which interoperability is a critical issue:

1. I want to be able to **aggregate**, in a central location, all key information about myself, such as the trail left in various information systems of organizations I have been dealing with, from kindergarten to nursing home (and eventually I want to reduce the size of this trail to its minimum!). *This requires standardized data format as well as protocols (e.g., SAML) ensuring that I control who has access to what piece of information.*
2. I want to be able to fully **exploit** the contents of my ePortfolio, using a multiplicity of services, for example, *cross-reference* the contents of my ePortfolio with standards of competence hosted by an industry sector governing body in order to present a file for accreditation of prior work experience; search or apply for a job. *This also requires a standardized data format as well as protocols across applications, such as those defined by the Open Knowledge Initiative (OKI).*
3. I want to be able to **profile** the readers of my multifaceted ePortfolio to present them with relevant information: faculty with curricular and (some) extracurricular activities; and employers with relevant information on competencies, experiences, and personal values without having to expose my gender or ethnic origin. This latter point is critical in some countries or sectors where prejudices are still prevalent. *This will probably require some kind of hand-shaking protocol (tell me who you are and I’ll tell you more about me!) between personal information systems and the creation of “circles of trust” that will accredit visitors with the appropriate rights.*
4. I want to be able to **share** different parts of my ePortfolio across different communities having their own “aggregator” of individual ePortfolios, providing a seamless environment of individual and

community ePortfolios—for example, professional communities, communities of practice, and organizational ePortfolios used for quality assurance or accreditation. *Some communities are already using RSS aggregators, but one of the most promising technologies is probably the semantic Web, starting with (enriched) specifications such as FOAF (Friend of a Friend).*

5. I want an ePortfolio **intelligent** enough to automatically update some of its contents and presentations; for example, when I create an item about a new work experience, having my résumé automatically updated (but still have the ability to edit it manually, if I wish) or like wikis, (semi-) automatically cross-reference documents, so that when I have an item on a particular work experience, and if I write a reflection where the name of the employer is mentioned, create a link between the name and the item. *There is nothing really special here, so can't the suppliers just do it?*
6. I want an ePortfolio **flexible** enough to let me choose if I want to fill in information using forms (because I am lazy, I lack imagination, or on a more positive note, since I prefer starting with disconnected pieces of content and provide the context later) or through a blog or a free-form editor that lets me structure (like the outline mode of a word processor) and enrich its contents with tags (e.g., mark parts of a text “evidence” or “reflection”), giving me the ability to start with the “context” from which I then aggregate linked pieces of contents. *Here again, there is nothing really special, so why not do it?*
7. I want an ePortfolio **resilient** enough so that when a primary source of information disappears or when technical standards evolve, I am still able to access it, for example, access a record from a start-up that went bust. *This requires mechanisms such as caching (the type of service offered by Google) and replication.*

I believe that part of the realization of my seven wishes will derive from an architecture that will be a combination of peer-to-peer networks (with the contents of my ePortfolio cached in a databank) and client-server technologies to interact with various institutions and organizations.

But making my wishes come true would not be possible without the hard work of ePortfolio practitioners and publishers, who, as the authors of this book demonstrate, are exploring with a curious and open mind this still almost virgin territory. I believe that the contents of this book, bearing witness to the transformational impact of ePortfolios and generating stimulating reflections on the nature of twenty-first century learning, will make a major contribution to the cartography of this new territory and help us to get the necessary political commitment to achieve our 2010 goal: (interoperable) *ePortfolio for all!*

Serge Ravet

Chief Executive, European Institute for e-Learning (ElfEL), France

ENDNOTE

- ¹ The Europass suite of documents consists of a CV, a language portfolio; a record of trans-national mobility experiences; the Europass Diploma Supplement (EDS, part of a worldwide initiative with the support of UNESCO) issued—along with a higher education diploma—by the university or institution outlining the student’s educational pathway in terms relevant to potential employers, and the Europass Certificate Supplement, a version of the EDS for vocational education

REFERENCES

- Nonaka, I., & Takeuchi H. (1995). *The knowledge-creating company*. Oxford, UK: Oxford University Press.
- Tosh, D., & Werdmuller B. (2004, September). Creation of a learning landscape: Weblogging and social networking in the context of e-folios. In *E-Portfolio 2004 Proceedings*. France: ElfEL.