

# INCREASING SUSTAINABLE ORGANISATIONAL DEVELOPMENT BY USING E-PORTFOLIOS

Marita Naudé\*

## Abstract

Feedback from business students using e-portfolios indicated it stimulated reflection, guided career management and improved technological skills. At first glance, these key benefits seem only applicable to individuals. However, at a closer look it is clear that these key benefits are also applicable to teams and organisations. Reflection is crucial in fast changing environments demanding action, multitasking through many technologies and competing in an increasingly interconnected world. Career management is a known factor to retain employees leading to sustainable organisational development and ongoing competitive advantage. Improved technological skills apply to all sectors in an organisation. Based on this reasoning, an e-portfolio is proposed as one tool beneficial to the business environment and this article provides practical guidelines for implementation.

**Keywords:** organisations, technological sector, e-portfolios

\*Associate Professor Marita Naudé (PhD)

Curtin Graduate School of Business; Curtin University; Corner Murray and Pier Streets,  
Perth, Western Australia, 6000

ph: + 61 08 9266 7615

email: Marita.Naude@gsb.curtin.edu.au

## 1. Introduction

The value added contribution of this article is threefold. Firstly, it potentially raises awareness among board members, business managers and employees regarding using the e-portfolio as more than a repository to demonstrate accomplishments but as a tool to increase reflection, assist to assess current goals and plan future goals, guide and support personal and professional development, and improve technological skills. Secondly, it argues that reflection has definite benefits to the individual and the organisation and that employees value career development and professional development opportunities as a means of retention. Thirdly, it provides a practical contribution through guidelines to members of boards, managers and employees for implementing e-portfolios. These practical guidelines are based on recommendations by business students who have used the e-portfolio, the lessons learned by this author, and supported by literature.

Based on the feedback from a group of Masters level business students who used an e-portfolio (where the author was the academic) it was clear that the e-portfolio is more than a repository tool for information. What stood out was that the e-portfolio has three interlinked and interrelated key benefits, namely it:

- stimulated reflection (self-reflection and critical thinking);

- guided career management; assisted to assess current goals and plan future goals;
- improved technological skills.

These findings were consistent with literature (Magill & Herden, 1998; Dubinsky, 2003; Trounson, 2008; Kimball, 2002; Hardin & Cook, 2001; Leece, 2005; Fennel, 1998). The author of this article opines that the insight gained from this group of business students is transferable to a business context and valuable to board members, business managers and employees. In addition, the students stated clearly that the e-portfolio is a valuable tool for the workplace. At a first glance, it seemed that all these key benefits are only applicable to individuals. However, at a closer look it was clear that these key benefits were also applicable to teams and organisations.

Reflection (stated as the first key benefit of the e-portfolio) is crucial in fast changing environments demanding action, multitasking through many technologies and competing in an increasingly interconnected world (Hedberg, 2009; Cambridge, 2008) where practitioners need to quickly learn new skills, make independent decisions and find creative solutions (Barlett & Ghoshal, 2002; Khandekar & Sharma, 2005). Reflection assists practitioners to take more thoughtful, purposeful, meaningful and value-driven action (Hedberg, 2009; Raelin, 2001). However, critical reflection does not come naturally to many and has to be facilitated by training through reflective processes and tools (Gray, 2007).

Career management (stated as the second key benefit of the e-portfolio), including assessment of current goals and plan future goals, are highlighted by numerous authors and in research projects (Holtom *et al.*, 2006; Klein, 2009; Pillay, 2009; Meyer *et al.*, 2004; Cascio, 2006; Messmer, 2006; Morris, 2007; Kock & Burke, 2008; Naudé, 2009; Reiss & Costello, 2007; Tyler, 2007) as retention factors for employees. Retaining employees is one strategy facilitating sustainable organisational development crucial for strategic and competitive advantage and to survive over the short and long-term (Clulow *et al.*, 2003).

It is a universal assumption that improved technological skills (stated as the third key benefit of the e-portfolio), apply to all sectors in an organisation and have definite benefits in an increasingly interconnected and technologically driven business environment.

This article is presented in three parts. The first part will briefly discuss the main reasons for selecting an e-portfolio, the context for implementation, what the e-portfolio looked like, and feedback from a group of Masters level business students which formed the basis for this article. Part two will discuss relevant literature which the author used as a basis for the arguments. This section explores the literature related to particular aspects of e-portfolios, reflection in business and career management. The last part will discuss practical guidelines for members of boards, managers, employees regarding the effective implementation of e-portfolios.

## **2. Use of an e-portfolio for business students**

Within the scope of this article, the author does not aim to provide a detailed discussion of the implementation and outcomes from an e-portfolio for Masters level business students. However, a snapshot and brief discussion provides background information to the reader.

### **2.1 Reasons for selecting the e-portfolio**

Based on evidence from the literature (which is discussed in more detail later), it seemed to the author that the e-portfolio was at the time an applicable tool to capture evidence of accomplishments (such as learning objectives), encourage reflective learning and

thinking, stimulate personal leadership development and long-term professional development.

The author accepted two valuable principles stated by Chappell and Schermerhorn (1999). Firstly, once it is decided to implement the e-portfolio it should be mandatory to overcome the resistance or avoidance by students who are technologically adverse. Secondly, students are encouraged to recognise and acknowledge their technological and computer shortcomings and they should be given support to overcome those problems. To overcome resistance and technological difficulties training sessions were organised.

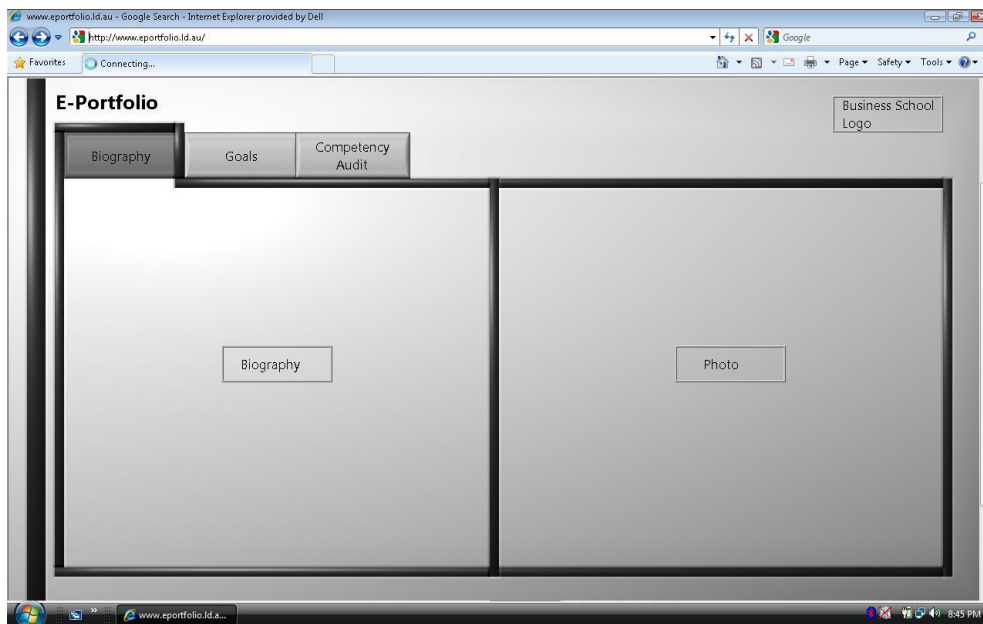
### **2.2 Context for implementation**

The author was the academic teaching a Leadership Development unit (subject) in a Business School and the students enrolled in this unit are studying towards a Masters level Business degree. Seventy-two students used the e-portfolio. The average age was 35 (ranging from 30-55) and 85% were undertaking part-time studies while working full time. Within this group, all students have completed a Bachelor degree and a minimum of 5 years work experience as a manager.

### **2.3 What the e-portfolio looked liked**

The e-portfolio was introduced to capture the attainment of the learning objectives for the unit. However, to ensure a holistic picture, the author asked the students to include a brief Resume/CV, and both personal and professional goals for the following 3 years. Although commercial e-portfolios are available, the author used an e-portfolio that was designed in house and based on Internet accessed forums, for example Facebook or LinkedIn. A screen view similar to the implemented e-portfolio is shown in Figure 1.

At commencement of the unit (and before students started the e-portfolio), the author and an IT support staff member presented a 2-hour training session (supported by comprehensive handouts) to ensure students understand the aim of the e-portfolio both in general and in the unit, and understand how to use the technology. Thereafter, the students used the e-portfolio for a period of 14 weeks (one trimester) which is the duration for the unit.

**Figure 1.** Example of a possible format

## 2.4 Feedback from the students

As the author was interested in the students' experience of the e-portfolio, they were asked to provide feedback at the end of the trimester. Although providing feedback was voluntary, all the students contributed anonymous written feedback. For the purpose of this article, the three key benefits are discussed, supported by verbatim statements to reflect the 'voice' of the students.

### Stimulated reflection

The majority of students clearly indicated that the e-portfolio stimulated reflection on strengths and weaknesses, ideas, problems, alternatives, personal and professional areas to develop. They highlighted the value of reflective thinking in the classroom but also within the work place (as an individual and in a team) by stating:

*"It was an opportunity to reflect on my capabilities and where I need to improve. It also helps me to reflect on alternatives and solutions to different problems"*

*"It helped me understand the importance of reflective thinking, both professionally at work and at university to critically analyse the knowledge and practices on a personal level and when working in a team"*

*"The e-portfolio allowed me to assess what I had achieved, reflect on this and formulate an action plan to improve my capabilities"*

### Assisted to assess current goals and plan future goals; guided career management, personal and professional development

Students stated that the e-portfolio assisted in assessing their current goals, and plan goals for the future (to 'look back' and 'look forward'). In addition,

comments that the e-portfolio process encouraged direction were common. Statements included:

*"Writing down the Professional and Personal Goals made me re-think my goals and objectives"*

*"It provided me with a wonderful opportunity to look back and assess my skills and then to look forward to set goals, direction and aspirations for myself"*

In addition to assessing current goals and plan future goals, it was evident that the e-portfolio can be used as a tool for career management and to guide and support personal and professional development through increased reflection on strengths and limitations and motivation to learn more or develop particular capabilities. Comments highlighted the use of the e-portfolio for performance management. In addition, students indicated the use of the e-portfolio outside education and within a work place setting.

*"The e-portfolio helped me devise strategies and action plans to better my skills and abilities over the next couple of years"*

*"Good for future use such as career planning or career management to guide and support my professional development"*

*"Provided a valuable tool to use for personal performance management, goal setting and ongoing professional development"*

### Improved technological skills

It was evident that the e-portfolio improved technological skills and this is applicable to every sphere in business. It was evident at the training sessions that many students possessed only basic computer skills and students mentioned that they gained both particular and general technological skills. Some students mentioned they will value and use these skills in the future, for example:

*"I developed specific skills such as patience and to 'save' very often as well as more specialised skills such as to attach a video"*

*"I developed my understanding of PowerPoint and the different functions for better presentation of any assignments or portfolios in future in my course and in the work place"*

### 3. Theoretical framework

Applicable literature from several theoretical frameworks is used as a basis for argument in this article. The author believes that all the benefits of the e-portfolio to both the individual and organisation are interlinked and interrelated. However, for practical and structural reasons, these aspects are presented as separate entities.

#### **E-portfolio as more than a repository tool**

It is well documented that the e-portfolio has many benefits. A brief snapshot of the general benefits of the e-portfolio is included in this discussion to provide and overall picture and for the benefit of the novice e-portfolio user. However, the main focus is on the key benefits applicable to this article, namely that the e-portfolio:

- stimulated reflection (self-reflection and critical thinking);
- guided career management; assisted to assess current goals and plan future goals.

It is a universal assumption that improved technological skills (stated as the third key benefit of the e-portfolio), apply to all sectors in an organisation and have definite benefits for both the individual and the organisation in an increasingly interconnected and technologically driven business environment. Therefore, this aspect is not further explored in the literature.

Firstly, the overall benefits of the e-portfolio are well researched and recorded. Although the paper-based portfolio is well known, the e-portfolio has the benefits (Barrett, 2000; Corbett-Perez & Dorman, 1999; Piper 1999; Trounson, 2008) that it:

- is easy to create, keep-up-to-date, manage and store information and artifacts;
- looks professional, is easily portable and transferable;
- can be modified to reflect different levels and ranges of competencies and accomplishments;
- can be personalised with individual touches such as sound and multimedia;
- is able to capture and integrate previous experience and learning;
- combines narrative, digital and multimedia work to present a holistic picture of the person's work.

Secondly, the e-portfolio stimulated reflection (self-reflection and critical thinking) as it encourages the individual to reflect on competencies and

capabilities (Trounson, 2008; Hackney, 1999), strengths and weaknesses (McCowan *et al* 2005; Kimball, 2002; Hardin & Cook, 2001). The e-portfolio development process is dynamic, complex, thought provoking and it includes self-reflection, problem solving and decision making (Salend, 2001; Kimbal, 2002). In effect, this process (or series of processes) moves thinking from a linear to an integrated approach (Fitch *et al.*, 2008). In addition, when deciding on the content to include, the individual needs to reflect on and understand the connection between different e-portfolio components which enables employees to become architects of life-long learning (Dubinsky, 2003; Fitch *et al.*, 2008; Zhang *et al.*, 2007; Barrett, 2000). As a product, the e-portfolio demonstrates the variety, depth and range of the individual's achievements, knowledge gained from continuous learning processes, outcomes of constant resource collection, self-reflection and re-design (Denzine, 2001; Fennel, 1998; Corbett-Perez & Dorman, 1999; Magill & Herden, 1998; Zhang *et al.*, 2007). In the work place e-portfolios encourage teamwork, creative thinking, analysis, comparison, decision-making, problem solving (Corbett-Perez & Dorman, 1999) and promote interaction and collaboration among the employees (Zhang *et al.*, 2007).

Thirdly, the e-portfolio guided career management and assisted to assess current goals and plan future goals (McCowan *et al.*, 2005; Kimball, 2002; Hardin & Cook, 2001; Hackney, 1999). The process to develop an e-portfolio increases awareness related to the individual's own learning processes and activities to accomplish personal and professional growth (Fitch *et al.*, 2008). As the e-portfolio demonstrates a unique collection of individual goals, evidence of depths of accomplishments, it is appropriate for job applications (Williams, 2008; Nikirk, 2008; Salend, 2001; Kimbal, 2002), application for promotions and personal marketing (Chappell & Schermerhorn, 1999; Denzine, 2001; Nikirk, 2008; Leece, 2005). E-portfolios encourage employees to take advantage of opportunities, bring a greater clarity of purpose, a higher level of motivation and encourage personal and professional growth (Fennel, 1998; Denzine, 2001). In the workplace, the e-portfolio guides and supports long-term personal and professional development, could be used in combination with other performance management processes and tools (Denzine, 2001) and may be linked to standards for professional licensing (Barrett, 2000). E-portfolios are attractive to professions such as health, teaching and engineering (Trounson, 2008). Anderson *et al.*, (2001) opinionates that e-portfolio-based learning requires a high form of skill and knowledge integration as individuals need to reflect on the development of their professional skills in the process of creating their professional identity.

### Reflection in business environments

Reflection is a multifaceted concept and there are numerous benefits for the business environment. At least two of these benefits applicable to this article are highlighted.

Firstly, reflection is a very important skill to practitioners (managers and employees) in fast changing business environments demanding action, multitasking through many technologies, and competing in an increasingly interconnected world. Practitioners need to quickly learn new skills, make independent decisions and find creative solutions (Barlett & Ghoshal, 2002; Khandekar & Sharma, 2005; Brooks, 2005; Pemberton *et al.*, 2001). It is through reflection that practical experiences become meaningful and practitioners use active and purposeful discovery, are enabled to analyse a situation, collect relevant facts, sort through alternatives, develop creative solutions, ponder recent events and the immediate environment (Hedberg, 2009; Gray, 2007; Raelin, 2001). However, reflection is not a substitute for action or a strategy for procrastination. Practitioners who build reflective thinking into their decision making processes take more thoughtful, purposeful, meaningful and value-driven action (Hedberg, 2009). Gray (2007), Pavlovich *et al.*, (2009), Salend (2001) and Vince (2002) contended that reflection allows practitioners to challenge assumptions, develop more collaborative, ethical and responsible ways to manage organisations, become receptive of alternate ways of behaving and reasoning, develop new understandings, continuously examine impact of decisions and actions, apply new learning and perspectives to future endeavours.

Secondly, another line of reasoning emphasises effective management and sharing of knowledge combined with organisational learning enhances both competitive advantage and business performance. Consequently, organisations need to develop a culture of learning and reflection (Pemberton *et al.*, 2001). Cambridge (2008) was of the opinion that problems increasingly defy specialised solutions, knowledge and culture is constantly remixed, boundaries between personal and professional are unclear, patterns of employment necessitate flexibility and independence. Although practitioners are operating in a very fast-paced environment, action without reflection could be fatal to the success of an organisation (Raelin, 2001). Skilled and motivated employees are central to create and maintain competitive advantage and sustainable organisational development (Barlett & Ghoshal, 2002; Khandekar & Sharma, 2005). In addition, there is a continuous focus on aligning informal and formal learning, using innovative learning tools and technologies to assist individuals, enhance productivity and innovation, drive and contribute to business results (Hall, 2009; Svenson & Ellstrom, 2004; Walters, 2009). In addition, reflective employees reinvest in learning by seeking more challenges, participating in ongoing education, engage

in problem solving, continually build on their solution database rather than selecting the first workable solution, view inconsistencies as opportunities and enjoy reflecting on their decision making and actions (Raelin, 2001).

### Career management as retention factor for sustainable organisational development

There are many individual and organisational benefits ascribed to effective career management. However, for the purpose of this article, the focus is twofold. Firstly, the benefits to and expectations of the individual are highlighted. Secondly, the importance of employee retention (which is a benefit of career management) in the sustainable development of organisations is briefly discussed.

Firstly, it is well documented in various research and literature (Curtis & Wright, 2001; Casey & Warlin, 2001; Friedrich, 2001; Holtom *et al.*, 2006; Klein, 2009; Pieper, 2003; Pillay, 2009; Meyer *et al.*, 2004) that ongoing career management and professional development is important. Ongoing professional development starts with induction, orientation and socialisation of newcomers. Multiple authors (van Leeuwen *et al.*, 2005; Kock & Burke, 2008; Holtom *et al.*, 2006; Numerof *et al.*, 2004; Pilay, 2009; Karson, 2007) found that employees not only value ongoing personal and professional development but also want and expect new and challenging opportunities and work (Coile, 2001; Frauenheim, 2006; van Leeuwen *et al.*, 2005). In addition, Morris (2007) stated it was evident (among Canadian employees) they were looking for training and ongoing learning combined with active career advancement.

Secondly, employee retention is crucial for sustainable organisational development, development and maintenance of a strategic and competitive advantage (Franklin, 2006; Hatch & Dyer, 2004; Khandekar & Sharma, 2005; Sun & Tse 2009). A 2005 Gantz Wiley Research report stated the opportunity for career development is one of the top 5 drivers for employee retention (Cascio, 2006). Messmer (2006) supported this opinion and added that one of the key reasons why employees leave organisations is because of a perceived lack of career development. It is well-known that long-term employees have a strong knowledge base, pass their knowledge, skills and experience to new employees and build the morale in the organisation (Barlett & Ghoshal, 2002). Conversely, the organisation loses the knowledge, skills and experience when employees leave. As a result, retaining employees is crucial to keep the knowledge and experience within the organisation contributing to profit, sustainable organisational development, strategic and competitive advantage (Franklin, 2006; Hatch & Dyer, 2004; Khandekar & Sharma, 2005; Sun & Tse 2009). Khandekar and Sharma (2005) and many others

(Boxall, 1996; Boxall & Steeneveld, 1999; DeSaa-Perez & Garcia-Falcon, 2002) all view employees as a valuable resource. Employees possess scarce codified and tacit knowledge and expertise which cannot (like capital) be accumulated at the top of the organisation and then distributed where and when needed employees are embedded at every level influencing all processes and relationships (Barlett & Ghoshal, 2002; Contino, 2002).

#### 4. Practical guidelines

This last part of the article provides practical guidelines to members of boards, managers and employees for implementing e-portfolios. These practical guidelines are based on recommendations by the business students involved in the e-portfolio, the lessons learned and insights gained by this author, and supported by literature.

##### 4.1 Voluntary or compulsory

Chappell and Schermerhorn (1999) were of the opinion that once there was a final decision to implement the e-portfolio in the organisation, it should be compulsory for employees to overcome resistance or avoidance.

##### 4.2 Format

Technological difficulties must be minimised to allow the employees to focus on the content and process of the e-portfolio and not get distracted and/or discouraged by technological difficulties. Therefore, a very user friendly format is crucial. Internet accessed forums, for example Facebook (for social networking) or LinkedIn (for professional networking) are well known and most employees are familiar with these. Following this logic, a basic Internet based website that contains the e-portfolio has a 'familiar feel', is easy to access and use. It is advisable that organisations firstly, analyse the employees' needs and the purpose for the e-portfolio. Then secondly, evaluate the commercially available e-portfolios from various software companies for suitability. Lastly, make the decision between a commercially available and an in-house developed e-portfolio. An extremely important factor is that the chosen the e-portfolio format should allow private ownership to the employee. In addition, it must be password protected to ensure privacy and confidentiality of information. Similar to Facebook and LinkedIn, the owner should be able to invite others to view the content and/or to participate. The author suggests an easy to use format that is both basic enough for beginners and allows flexibility to employees who want to use advanced functions (such as video clips). This was also the opinion of Dubinski (2003), Jafari (2004) and Carney (n.d).

##### 4.2 Training

Chappell and Schermerhorn (1999) suggested that employees are encouraged to acknowledge their

technological and computer limitations and be given support to overcome those. Following this logic, training and information (clarified by multiple examples) before and during the implementation of the e-portfolio are advisable.

##### Timing

The timing of the training is very important and initial and follow-up sessions are advisable. The initial training should be scheduled before the employee is expected to commence with the e-portfolio. Thereafter, follow-up (refresher) sessions are offered according to identified needs within the particular organisation. Student feedback supports this approach:

*"I could not have done this without the training right at the start"*

*I appreciated the training at the start of trimester as it allowed me to start and the 'refresher' half way was very helpful"*

From the author's experience, the initial sessions should be a maximum of 2 hours as a longer session could be overwhelming. All sessions should include a general (information and demonstration) component as well as a 'hands on' (practice) component. In addition, there should be ample time allowed to address questions from the employees.

##### What to include

The initial session needs to include both the overall use of the e-portfolio and the specific use within the organisation. In addition, technological skills training should prepare and guide employees to access the e-portfolio, manage documents, insert evidence or artefacts, and invite other employees and/or viewers into their e-portfolio. Technological skills training should focus on the needs of both the novice and advanced user. The novice user needs the basic skills to get started, fulfil the minimum expectations and overcome the initial resistance and fear. The advanced user needs more advanced and creative skills to include special effects (such as photos, short videos, animated PowerPoint slides). It must be made clear that employees need to select the most applicable evidence and artefacts to demonstrate a skill or knowledge. Many employees need technological information and a practical demonstration on particular aspects, such as how to condense the size of files as 'space' is always limited.

Based on the students' feedback, the examples (including examples of good and bad e-portfolios) that were shown during the training made it real (especially for the novice user). Although the author included numerous examples in the training sessions, there was a clear demand for even more. Student comments included:

*"I had no idea what an e-portfolio looked like and the examples brought it to life and made it a bit more real"*

*"Liked the real life examples. They gave me some ideas for my own e-portfolio"*

*"To have even more examples of e-portfolios would give a better understanding of what an e-portfolio is and what one actually looks like"*

*"Maybe shown us more examples of good and bad e-portfolios"*

For confidentiality and privacy reasons, it is crucial that owners of examples are contacted for written permission to use their examples on the organisational website (if that is planned) or during the training sessions prior to these aspects being used. Usually the owner is not named but only the example provided.

#### 4.3 Ongoing support

Based on the author's experience and supported by the feedback from the students, hard copy hand outs are recommended to provide a future reference and a support system. Students stated:

*"The hard copy handouts were great as I could refer back to the notes when I got stuck"*

*"I need hard copy notes when I struggle with technology and do not want to struggle with more technology such as a website to sort out my technology problems!"*

If possible, information and examples could be placed on the organisation's website to allow employees to revisit these.

Dubinski (2003), Jafari (2004) and Carney (n.d) opinionated that employees might experience 'cognitive overload' when they are trying to become adept with technology while simultaneously reflecting on learning. Following this logic, it seems that employees who are working at the limits of their technological and computer skills have very little cognitive time and energy left for thinking, reflection and achieving goals. Conversely, when there is no real need to worry about their technological and computer skills, employees can concentrate on the e-portfolio process and content. Similar to these opinions, the author learned that ongoing support from a real person was crucial to alleviate the initial fear, frustration, difficulties or to share the success and the joys. A support person could be a dedicated technological person or an employee who is confident in working with the e-portfolio. Support should be available by telephone, email and/or individual 'hands on' sessions and is invaluable to ensure employees become comfortable with the technology and resolve problems as soon as possible. A voluntary 'buddy' system could be effective where employees who feel they are more advanced users and are willing to 'buddy' with more novice users to provide information, technological assistance and overall support. Support (in whichever format) is very important to allow employees to focus on the reflective aspects and insights from the e-portfolio

process and not be bogged down or be frustrated by solvable technological difficulties. The author does not recommend support on full time 24 hour basis as it is impractical and not sustainable. However, employees should be able to obtain information and assistance easily and the response time should be short (and definitely within 24-48 hours).

#### 4.4 Collaborative process

In addition to the previously discussed guidelines, Denzine (2001) suggested:

- Use a collaborative and participative process (involving interested employees) to develop and implement the e-portfolio as opposed to it emanating from management.
- Emphasise and be very clear that the e-portfolio is a collaborative opposed to a competitive tool. There should be no competition regarding who has the most information or artefacts or the most complicated special effects in the e-portfolio. Using the e-portfolio should focus on a selective process of analysis, critical thinking, decision-making and problem solving through collaborative support from managers and colleagues. Employees are encouraged to invite managers and colleagues to provide feedback and insights on each other's e-portfolios. In addition, managers could provide artefacts (such as a congratulatory letter) for employees' e-portfolios.
- Competent employees (at different levels in the organisation) could act as advisors to employees who are new to the e-portfolio process and/or the organisation.

#### 5. Conclusion

Based on the lessons learned, insights and understandings gained by the author, feedback from a group of Masters level business students, and supported by literature, the author is of the opinion that the e-portfolio could be implemented in the work place as one tool to add value for individuals and organisations. Key benefits included that it stimulated reflection (self-reflection and critical thinking); assisted to assess current goals and plan future goals; guided career management, personal and professional development; and improved technological skills.

This article represents feedback from the particular group, time and place and the insights gained cannot be blindly extrapolated and generalised to all areas of business and all other employees. However, the principles are applicable.

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