

# Chapter 10

## Developing an E-Learning Platform: A Reflective Practitioner Perspective

**Maria Potes Barbas**  
*University of Aveiro, Portugal*

### ABSTRACT

*This chapter applies the principle of reflective practice - as the capacity to reflect on action - so as to engage in a process of continuous learning about the implementation of an e-learning platform at the Polytechnic Institute of Santarem, Portugal. The chapter begins with an introduction to the role of reflective practice, a discussion of fundamental e-learning principles and an overview of the e-learning platform's information architecture. In addition, two methodological tools support the reflective thinking process and the extraction of recommendations: social network analysis and visualization of structured discussion forum activity, and an inductive thematic analysis of the postings to the platform's unstructured fora.*

### INTRODUCTION

Using a reflective practice angle, this chapter describes the stages that led to the implementation on an e-learning platform at a Portuguese Higher Education Institution, notably the use of the e-learning platform to promote the development of a community of practice, in the context of an MA in Education and Multimedia Communication. Since the author was involved in the development of the e-learning platform described in this chapter, reflective practice is understood here as a process of learning through and from experience towards developing new insights of

individual professional practice (Mezirow, 1981; Boyd & Fales, 1983; Jarvis, 1992).

The reflections contained in this chapter are presented from the perspective of the instructor as facilitator, which implies embracing pedagogical roles, but also the roles of the technologist, researcher and administrator (Gilbert and Dabagh, 2004; Bawane & Spector, 2009). Two methodological tools have supported the analysis of data that sustains the reflections contained in the chapter: real-time social network analysis and visualization of structured discussion forum activity using the Social Networks Adapting Pedagogical Practice (SNAPP) tool (Dawson,

DOI: 10.4018/978-1-4666-8833-9.ch010

2009), and an inductive thematic analysis (Braun & Clarke, 2006) of the postings to the platform's unstructured fora with a view to understand and categorize participants' perceptions of motivations, activities, and community-orientation.

## **BACKGROUND**

### **Reflective Practice**

John Dewey was a pioneer in the development of theory about reflection, more specifically theory that focused on how to extract meaning from experience and subsequently apply it to educational practice. Dewey's definition of reflective practice refers to a 'conscious and voluntary effort to establish belief upon a firm basis of evidence and rationality' (Dewey, 1933, p. 9), which includes action, extraction of meaning from experience and a personal desire for intellectual development (Rodgers, 2002). Indeed Dewey (1938) called for the amalgamation of human experience as a privileged means to understanding experience. This requires an integrative effort, a process of connecting experience.

Similar understandings of the role played by experience in the shaping of knowledge were later put forward by Lewin (1951) and his 'cycle of action'. This model of learning described the process of knowledge as moving across a process of experience, reflection on experience, extracting meaning from experience and experimenting with new emerging concepts.

Different theoretical orientations concerning reflection have followed since Dewey's original formulation. Mezirow (1997), for instance, emphasised the importance of achieving a deeper level of understanding through moving from a descriptive level to a fuller comprehension of the impact and significance of experiences and how they influence individuals' behaviour and learning.

Further theoretical orientations include Schön's (1983) reflection-in-action; Boyd & Fales'

(1983) reflective learning; Mezirow's (1990) critical self-reflection; Fogarty's (1994) metacognitive reflection; Loughran's (2002) critical reflective practice; Fisher's (2003) critical reflection.

Debates surrounding the concept are ongoing but there seems to be agreement around the importance of deeply interrogating experience as opposed to merely thinking about events. In this sense this chapter adheres to the definition offered by Eyler et al. (1996, p. 13), who define reflective practice as 'a process specifically structured to help examine the frameworks we use to interpret experience: critical reflection pushes us to step outside of the old and familiar and to reframe our questions and our conclusions in innovative and more effective terms'.

The process of reflection entails an examination of the experience, an analysis of its significance and an honest appreciation of its implications for the future. Biggs (1999) describes this process as an example of abstract higher order learning that compels individuals to questioning existing assumptions, and challenging our prevailing frames of reference (Brookfield, 1995). This challenging of established frames of reference is what promotes and enables change, and critical reflection allows the transformation of meaning structure – admittedly not without friction and trepidation (Mezirow, 1997).

There is a vast body of literature illustrating the role of reflective practice in specific professional contexts such as medical education (e.g. Glynn et al., 2006; Lachman & Pawlina, 2006; Mann et al., 2009), nursing training (e.g. Hyde, 2009; Issitt, 2003), and teacher training and professional development (e.g. Farrell, 2004; Flanagan, 2007; Generett & Hicks, 2004; Hsu et al., 2008; Lyons, 2010; Ottesen, 2007; Palmer, 2007; York-Barr et al., 2006; Yost et al., 2000), but fewer examples of reflection on e-learning development and implementation (e.g. Carroll, 2013; Cochrane, 2013).

In that sense, what this chapter aims to achieve is a depth of understanding and the ability to see beyond the e-learning instructors' own presup-

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/developing-an-e-learning-platform/137482](http://www.igi-global.com/chapter/developing-an-e-learning-platform/137482)

## Related Content

---

### Intelligent Models for Stock Price Prediction: A Comprehensive Review

Kwabena Ansah, Ismail Wafaa Denwarand Justice Kwame Appati (2022). *Journal of Information Technology Research* (pp. 1-17).

[www.irma-international.org/article/intelligent-models-for-stock-price-prediction/298616](http://www.irma-international.org/article/intelligent-models-for-stock-price-prediction/298616)

### Software Vulnerability and Application Security Risk

Jianping Peng, Meiwen Guoand Jing Quan (2019). *Information Resources Management Journal* (pp. 48-57).

[www.irma-international.org/article/software-vulnerability-and-application-security-risk/216441](http://www.irma-international.org/article/software-vulnerability-and-application-security-risk/216441)

### Access to the Living Room: Triple Play and Interactive Television Reshaping the Producer/Consumer Relation

Eggo Muller (2008). *Information Communication Technologies: Concepts, Methodologies, Tools, and Applications* (pp. 1846-1854).

[www.irma-international.org/chapter/access-living-room/22780](http://www.irma-international.org/chapter/access-living-room/22780)

### Investigating the Needs, Capabilities and Decision Making Mechanisms in Digital Preservation: Insights from a Multiple Case Study

Daniel Burdaand Frank Teuteberg (2013). *Information Resources Management Journal* (pp. 17-39).

[www.irma-international.org/article/investigating-the-needs-capabilities-and-decision-making-mechanisms-in-digital-preservation/80181](http://www.irma-international.org/article/investigating-the-needs-capabilities-and-decision-making-mechanisms-in-digital-preservation/80181)

### Road Safety 2.0: A Case of Transforming Government's Approach to Road Safety by Engaging Citizens through Web 2.0

Dieter Fink (2011). *Journal of Cases on Information Technology* (pp. 21-38).

[www.irma-international.org/article/road-safety-case-transforming-government/56307](http://www.irma-international.org/article/road-safety-case-transforming-government/56307)