



# Inside e-Learning:

**collected works on principles and practices**

# Inside e-Learning: Collected Works of Principles and Practices

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# **DESIGN PRINCIPLES IN DDR: A CASE OF DEVELOPING A LEARNING SUPPORT TOOL FOR MALAYSIAN ONLINE LEARNERS**

**Nor Aziah Alias and Mohd Sabri Sahrir**

## **INTRODUCTION**

Technology has proliferated over the years. Mobile, cloud and ubiquitous computing is now feasible and widespread as technology is available to support such venture. The internet in particular has made many 24/7 tasks possible. Internet users have also grown tremendously over the years. As of March 2011, internet users have grown to 2 billion, a 480% growth since 2000. The penetration rate is reported as 30.2 % of the world population with the highest rate being in North America. ( The Internet World Stats, 2011).

With such technological advancement, learning has transcended beyond the physical classroom; it is not only possible for working adults to come back to learn without leaving their jobs, it is now easier for them to do. Technology is currently employed as a tutor, a learning tool and to support communication when face to face interaction is not available. It has been used widely as a support for cognitive, metacognitive and also affective learning (Alias, 2011; Hargis, Abbott, Miller, & Wilson, 2005). Technology has also improved the scalability of instruction, enabling its delivery to a larger audience.

However, increasing use of technology in learning has brought forth issues such as complexities in integrating technology that relate to aspects such as interdisciplinary, multidisciplinary, learner diversity, and culturally responsive issues. Readiness and accessibility to those disenfranchised by traditional delivery systems are still being studied (Reeves, 2005) despite the more prevalent attempts to develop technology based learning products and technology enhanced learning environments and investigating their usability and effectiveness (Beichner, 2006). As it is, educators have the tendency to explore technology to enhance the quality of teaching and learning and then test its effectiveness .