Chapter 9

Using E-Learning to Address the Educational Digital Divide in Remote Communities in the EU: Best Practices and Lessons Learnt from the REVIT Project

Thanasis Hadzilacos
Open University of Cyprus, Cyprus

Angelika I. Kokkinaki
University of Nicosia, Cyprus

Demetra Egarchou
Computer Technology Institute, Greece

ABSTRACT

Digital Divide may manifest itself in terms of educational opportunities, especially in remote or insular areas. REVIT, an e-inclusion project, proved that e-learning courses can be designed, developed, and implemented to address the needs as these are described by the trainees themselves in an economically feasible, pedagogically sound, and technologically advanced way. The educational outcome of the project is not a “techie” product threatening to alienate the intended audience. Rather, the medium becomes the message and in some cases the tool employed by the citizens of remote or insular areas to establish their own online communities. This is the value brought forward by the REVIT project.

INTRODUCTION

The Digital Divide can be defined as a gap between people and/or places with regards to their access to “Information and Communication Technologies (ICTs) and their use [...] for a wide variety of activities” (OECD, 2008). In this research, the Digital Divide is examined within the model for diffusion of innovations (Rogers, 2003) and the reason is twofold: first, it is a widely accepted theoretical framework and second, it permits us to study and argue on this issue on a basis that is neither loaded with perceptual biases nor with ideological overtones.

DOI: 10.4018/978-1-4666-4550-9.ch009
From a policy-making viewpoint, the ‘Digital Divide’ is posited as an issue that ought to be reduced, or extinct. Numerous fora have formed strategies and funded projects to address the Digital Divide. E-inclusion initiatives attempting to bridge the DD have been proposed at national, transnational, regional or international level; however, their outcomes do not seem to always have a sustainable impact. It seems that the Digital Divide indicates a much subtler social discrimination than the economic and class related inequalities; therefore, it is much more difficult to address the DD than simple economic or more complex cultural and class differentiations.

On the face of it, e-learning seems a perfect tool to alleviate the DD; e-learning is about education and education with ICT too (“the medium is the message”) – and education is the basis for alleviating any social inequality. However, e-learning implies effective adoption of ICT and in such cases, van Dijk (2005) has shown that the Digital Divide is widening instead of being reduced. So, e-learning can be a tool to sharpen, or hide the Digital Divide (DD), as well as to alleviate it. In this chapter we shall describe an e-inclusion project that employed e-learning to alleviate a Digital Divide. REVIT (Revitalizing Small Remote Schools for LifeLong Distance e-Learning) was financed by the LifeLong Learning Program (LLP) of the EU Commission and run from 2008 until 2010 in Finland, Poland, Bulgaria, Greece, and Cyprus.

Following the systematic categorization of contributing factors for DDs, as proposed by Hilbert (2011), we first report on REVIT’s conceptualization in each of the proposed directions:

- The ICT infrastructure is one of the main dimensions used to examine the Digital Divide. Depending on the ICT infrastructure selected to be studied, conflicting conclusions might be reached. For example, the DD is closing with reference to mobile phones adoption (Barrantes & Galperin, 2008; Castells, Fernandez-Ardevol, Qiu, & ISey, 2009); however, it is spreading when it comes to broadband networks adoption (e.g. Cohen, 2008; Guerra & Jordan, 2010). So far, the Digital Divide has been reinforced with ICT innovations, however, an aspect that is interesting relates to the gradient of this divergence; the Digital Divide may not always be binary (haves vs. have nots); it may have escalations, i.e. “have how much,” “have how fast” etc. In the REVIT project, we were focusing on the necessary ICT infrastructure to support Web and Web 2.0 services;

- In the REVIT project, the ICT infrastructure was not examined at individual level, that is, for each trainee individually, but at a communal/collective level, that is, at the level of the ICT infrastructure of the local primary school. This level of granularity introduces an interesting angle since most studies examine the Digital Divide at the level of individuals.

- The Digital Divide is studied in relation to contextual attributes: 1) for individuals such attributes include gender, age, level of studies, income, geographic location, etc.), 2) organizations (for example, type of ownership, sector, geography, size, etc.), or 3) countries (that is, their level of development, wealth, size, geography and ethnicity). The focus of the REVIT project was on adults, residents of remote areas in developed countries.

- In accordance with Rogers (2003) the levels of adoption and/or the degree of utilization may be classified as follows (1) initial exposure; (2) persuasion and the development of positive or negative attitude; (3) decision to access or reject (this is the stage which is often measured in contemporary ICT statistics); (4) implementation and actual usage; and (5) confirmation of its utility to continue and improve. In the REVIT project ICT adoption was regarded within its implementation and actual usage.
Related Content

Investigation of Consumer Behavior: A Study on Organic Wine  
[www.igi-global.com/article/investigation-of-consumer-behavior/146592?camid=4v1a](www.igi-global.com/article/investigation-of-consumer-behavior/146592?camid=4v1a)

Corporate Sustainable Growth and the Financing of Innovation: Evidence from Cash-Flow Disaggregation  
[www.igi-global.com/article/corporate-sustainable-growth-and-the-financing-of-innovation/101385?camid=4v1a](www.igi-global.com/article/corporate-sustainable-growth-and-the-financing-of-innovation/101385?camid=4v1a)

Common Problems and Lessons Learned from Managing Large-Scale US Government IS/IT Projects  
[www.igi-global.com/article/common-problems-lessons-learned-managing/58346?camid=4v1a](www.igi-global.com/article/common-problems-lessons-learned-managing/58346?camid=4v1a)

Integrating Ethics into Management: Why Is It Important?  
[www.igi-global.com/chapter/integrating-ethics-into-management/121361?camid=4v1a](www.igi-global.com/chapter/integrating-ethics-into-management/121361?camid=4v1a)