

Chapter 19

Users' Digital Competences Study to Design MOOCs for Digital Literacy in Mexico

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ABSTRACT

Several government programs oriented to contribute in reducing digital divide gaps have emerge in Mexico, particularly in States like Jalisco, Nayarit, Nuevo Leon, Veracruz, and Aguascalientes. However, current alternatives have certain weaknesses and issues that should be solved in order to provide appropriate literacy. To contribute in achievement of this goal, here is proposed an alternative to conform a strategy based on Massive Open Online Courses (MOOCs). First, a study was performed to establish the actual level of digital competences of current program users, and then obtained feedback was considered to structure the contents to offer through the MOOCs. This study was performed in the Aguascalientes state government program Vagones de Ciencia.

INTRODUCTION

Nearly from three decades developed countries from Europe, Asia, and North America had been addressing resources and government policies to preserve a long-term vision and plans towards reduce the digital divide creating inclusive programs that penetrates the social layers mainly covering to those most unprotected (Suba Rao, 2010; Binghamton University, 2011; Grillo et al., 2007; Gustafson et al., 2005; Chauveau & Vergara Sanchez, 2009; Zhou, Singh & Kaushik, 2011; ASRLO, 2007; PPE, 2013, CSIP, 2013; IDRC, 2002). Mexico and many other Latin-American countries were added to these ef-

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forts emerging several proposals such as (ICDL, 2011) where proposed programs for certification of people are as Digital Citizens. Similar efforts have been proposed in Mexico, where States like Jalisco and Nayarit had been referenced points for other States such as Aguascalientes where an efficient and effective Digital Agenda was implemented (IJTI, 2013). Said plan consisted of several programs that encourage the IT universal access. Each of these state alternatives is supported by the Digital Policy from Mexican Federal Government.

Particularly, the Aguascalientes Government creates in 2009 the program “Vagones de Ciencia y Tecnologia” (IDSCEA, 2015). Said alternative is oriented not only to approaching IT to people, but also to training them on usage and appropriation of IT. This program provides people -including senior citizens and students from basic education- an interactive space for science and technology divulgation. The program “Vagones de Ciencia y Tecnologia” has two railcars adapted as IT classrooms including forty PCs each and Wi-Fi internet service where are carry out playful activities, experiments, conferences, talks about IT for society, video projections, among other learning and training activities oriented to provide basics on IT usage and digital competences appropriation. These aspects was perceived as the difference against previous programs in the State and the country that just provide technology to people but do not launched any training program, in this vein several experts state that “Access is not enough” (Suba Rao, 2010; Shulman et al. 2002).

The program “Vagones de Ciencia y Tecnologia” is complemented by sister alternative called “Casas de la Ciencia y la Tecnologia”, which helps to extend benefits of the program to the most of towns in the State. This extension offer people free interactive spaces to approaching them to IT and Science fostering and increment in their interest on technology. This program is also offered to training workers at local industry on IT and Internet usage.

The whole alternative is then oriented to contribute to reduce digital divide in the State of Aguascalientes providing free IT and Internet training to people fostering both adequate access and usage to be applied later for personal benefits, academic, or labor.

As digital literacy strategy, this program could be classified as a non-formal educative program, understanding that non-formal education is that organized and planed educational activity provided out of the official educative system. Non-formal education could be provided at diverse places including cultural centers, libraries, among others. In this way, training sessions at the program “Vagones de Ciencia y Tecnologia” promotes several aspects from tacit knowledge encouraging learning from own experiences and acquiring knowledge from others as a result to live in society including values, attitudes, and abilities.

It is important to mention that through this research was corroborated the excellent labor of the people that operates and manage the program “Vagones de Ceincia y Tecnologia” in their commitment to improve the current alternatives for digital literacy for people in Aguascalientes. However, some pain points were identified by means of this study. From this feedback emerged some alternative solutions that were structured in collaboration with program staff and managers and users of the current program. The most adequate solution was selected to be described in this chapter.

BACKGROUND

As mentioned before the first step on this research was to perform a study about the actual level of digital competences among the users of the program “Vagones de Ciencia y Tecnologia”. To perform this study was used a questionnaire with thirty five items (closed questions, Likert scale style) closely associate to

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