

# The E-training Caravans: An e-Inclusion Initiative in Saudi Arabia

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**Abstract.** Today's technological world requires that individuals are capable of using Information and Communications Technology (ICT) effectively. In fact, more and more services are offered using technology, e.g. communication with family and friends, carrying out business, and interacting with governments.

To close the gap between "the technology-empowered communities and the technology-excluded communities" an initiative called the e-training caravan is presented in this paper. This initiative aims to enable the segments of society from dealing with telecommunications and information technology effectively, bridging the digital divide and raising awareness of the importance of ICT for all individuals. This initiative focuses on population of rural areas and low-income areas. In this paper we discuss the e-training caravan initiative proposed by the Ministry of Communication and Information Technology (MCIT) in Saudi Arabia, and highlight its objectives and training program. We also discuss the results obtained after running the caravan for one year along with the encountered barriers.

**Keywords:** e-Inclusion, Digital Divide, ICT Literacy, Rural Communities, Empowerment, Saudi Arabia.

## 1 Introduction

European Commission defines e-inclusion as "structural investment" for innovation and economic growth. It is both the inclusion and the use of Information and Communications Technology (ICT) to achieve wider inclusion and focus on participation of all individuals and communities in all aspects of the information society [1]. E-inclusion is concerned with "the goal of ensuring that everyone is included in and gains from developments enabled by ICT" [2].

The concept of e-Inclusion drives us to the term "Digital Divide" which refers to "the difference in access to, and usage of, information and communications technologies between people within the same country" [10]. This means that the lack of internet and computer access is one aspect of digital divide; yet, the other aspect includes people skills and capacities in using ICT.

Many governments' worldwide [2] started e-inclusion policies, programs and activities aimed at ensuring the participation of individuals and communities in all dimensions of the knowledge-based society and economy through their access to ICT. These governments have made many initiatives to remove access and accessibility barriers to ICT resources. Examples of worldwide initiatives include: the eInclusion European project [1], the eInclusion Foundation initiative, appointed by the Government of the Hong Kong Special Administration Region [3], and the Chile project aimed at bringing hope to people excluded by disability and poverty [4], to name a few.

Turning briefly our attention to Saudi Arabia, the current situation indicates the spread of computer illiteracy and Internet in rural and poor areas more than others [9]. To start bridging the digital divide and raising awareness of the importance of ICT for all individuals, as well as focusing on people living in rural areas and low-income, the provision of basic training and free use of ICT became a government necessity [5].

This paper reports on the e-Training caravans' initiative, proposed by the Ministry of Communication and Information Technology (MCIT) in Saudi Arabia, along with its objectives and training program. Furthermore, we will discuss in details the initiative obtained results and barriers pertaining to the features of the initiative.

## 2 Case Study: E-Training Caravans Initiative

In January 2012, MCIT launched the e-training caravans' initiative (<http://www.eqwafil.gov.sa>) which aims to provide computer and Internet literacy courses for both young and old citizens in rural areas and low-income people in Saudi Arabia. The objectives of this initiative are [6]:

- Introducing the importance of ICT to the targeted groups.
- Conducting training of the basic skills of using computers and the internet by the targeted groups.
- Providing the appropriate training environment to teach the basic skills of using computers to people in areas that large institutes and training centers are not available in.
- Encouraging people in rural areas, villages and hamlets to learn how to use computers and the internet, and
- Facilitating the access to government and commercial services easily to ensure equal access and inclusion for all citizens.

The trainers and the driver traveled between cities and villages within planned route specified by the ministry [6]. For the first year of the initiative, the e-training caravans routes were planned to visit ten provinces (Saudi Arabia is divided into 13 provinces) and 61 governorates (Saudi Arabia's provinces are further divided into 118 governorates).

The e-training caravan stays for one week (5 working days) in each place. During the week, the caravan provides four training sessions daily in the use of computers and the Internet, for ten training hours for each session in a total of 40 hours of training per week.

The e-training caravan target audience was selected based on their age and literacy criteria: students of the upper grades of elementary and middle school students in public schools; adults who do not have experience in the use of computers; and low-income families from urban and rural areas and villages.

The training is conducted in mobile classrooms in specially adapted five big buses. The maximum number of trainees for each class is sixteen. The classrooms are equipped with equipments and training materials such as LCD Screens, PCs, Printers and Wi-Fi connection (as shown in Figure 1).



**Fig. 1.** Standard E-Training shuttle bus: Outside and inside view [9]

The training materials consist of a stripped down version of International Computer Driving License (ICDL), and tackles the following topics: (1) Introduction to ICT, (2) Computer and its components, (3) Using the computer and managing files (4) Word processing and presentations, (5) Introduction to Internet, and (6) Using E-Mail. The training materials also cover a topic about introduction to Government e-services with examples on how to deal with the main e-services that benefit the citizens.

The training materials are provided in printed format for both the trainer book and the trainee book and in an electronic format as a CD, which contains the training materials. The training materials were designed by a board of experts in MCIT.

The trainers were selected based on a number of criteria to help ensure their success in the training. The criteria include: the trainer qualifications, ICT competencies and experience in conducting training.

The training is given in two versions: one targeting students, where the content covers how to search for information, use communication and presentation tools and benefit from government e-services; the other targeting adult users, where the content covered includes the basics of using computers and the internet and benefiting from government e-services.

During the caravans' trips, each trainee has a chance to enroll in the offered sessions, practice their content and have a certificate after completing the required hours.

### 3 Results and Discussions

The results (Table 1) inform the first year (2011/2012) of the caravans that travelled to ten provinces and 61 governorates, covering a total of 70,672 Km.

**Table 1.** E-Training caravan overall results for the first year [7]

Provinces	Governorates	Caravans	Courses	Total no. of trainees
10	61	120	443	9254

Table 2 shows the breakdown of registered and attended students and adults. We can see that the uptake of students was around 97% compared to 94.5% for non-students. This may be attributed to the previous arrangement and collaboration between the ministry of education and MCIT. The trainees were enrolled by a prior arrangement between MCIT and the ministry of education for school students.

**Table 2.** E-Training caravan enrolled trainees for the first year [7]

Students Courses		Adult Courses		Total no. of trainees
Registered	Attended	Registered	Attended	
5609	5431	4044	3823	9254

Based on qualitative data collection using both semi-structured interviews and observations among students and adults, the results of the first year of the e-training caravans were promising.

Observations showed that the caravan have helped elderly people get over their fears of using computers and helped curious young people who wanted to learn how to use the Internet. The elderly had the opportunity to use the Internet and benefit from the government and commercial services available online. They have also been trained on how "to sign up for emails, how to use chat and video programs to contact and see their children studying abroad, how to set up accounts for business purposes and how to access cultural, social and marketing sites" [8].

On the other hand, students were curious and excited about how to "use social networking sites, play games on the Internet and download different smart phone programs" [8]. Besides, high school graduates learned how "to register on various sites, including universities, Ministry of Higher Education, language learning centers, and how to chat with their friends and exchange photos and video files" [8]. Also students profited from the wealth of content in science, culture and entertainment provided by the caravan.

Switching to the encountered barriers, the semi-structured interviews showed that the most common barrier by adults was not knowing how to use computers and the Internet. This barrier is complemented by fear of using the technology and lack of self-confidence.

Also the cost of having decent internet access is another barrier, knowing that most people living in rural areas have low-income. Another barrier was the culture, since Saudi society is largely conservative and religious, therefore any actions against Islamic norms and values is inappropriate. The final noticed barrier was ICT infrastructure. In fact, the existing ICT infrastructure in most rural areas in Saudi Arabia is not that well-established.

## 4 Conclusion

The goal of this case study was to showcase the experience of conducting the e-training caravan and highlight the barriers encountered during running this initiative. The experience of the first year can be put to practice in improving the training for the next years and help in bridging the digital divide in Saudi Arabia.

Given the results of the first year of this initiative, it has shown success in achieving its main objectives and contributed to educating rural areas' residents about computer and the Internet.

This project was divided into three main phases, for the first phase lasting for one year, the second phase for two years, and the third phase for two years, in total the life span of this initiative will last for five years. This division was planned so as to benefit from the results of each stage in the implementation of the next phase. Also MCIT long term goal is to target 36 thousand students from primary and middle schools through 2400 training courses within 600 caravan trips [9].

Finally, MCIT continues to work on plans, policies, programs, projects and initiatives that assist in developing ICT awareness among Saudi citizens as well as stimulating the growth and spreading the use of ICT at all life aspects.

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