

# Chapter 2

## FOSS Solutions for Community Development

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### ABSTRACT

*The use of ICT solutions in developmental activities and the deployment of them in modern telecentres have been widely accepted phenomena. In this article, we examine the use of FOSS – Free/Open source software in ICT solutions and categorize them into two types: ‘FOSS in’ and ‘FOSS for’, in order to emphasize the difference between those solutions, where FOSS play a meager or symbolic role and those solutions that are specifically developed to address a community need. We discuss about our experience in developing a FOSS-based ICT solution that is specifically built to address the needs of a community information system. We illustrate our three-tiered multi-stakeholder model of development, deployment and usage. We also describe our experience in the process of development and pilot deployment of our solution in various locations of India, and emphasize on the synergies between our model and the FOSS mode of ICT solution development.*

### INTRODUCTION

FOSS – Free/Open Source Software refers to the software that can be run for any purpose, studied, modified and redistributed in the modified or unmodified forms. FOSS is also referred as FLOSS – Free/Libre/Open Source, and the term free in

FOSS or FLOSS is used as in ‘freedom’, and is not concerned with the price of the software. The idea of free software was conceived as a movement by Richard Stallman in 1983 to give software freedom to computer users (Stallman, 2002).

The term Open source software, as defined by Open source initiative – OSI, (Michael Tiemann, 2006) was derived mainly from the criteria of free software, as described above. The term Open

DOI: 10.4018/978-1-60960-497-4.ch002

source goes beyond the obvious meaning of just being able to view the source of software, but also the rights to modify, distribute, and redistribute. Hence OSI prefers to treat the term Open source as a trademark, and use it to only to describe that software licensed under an OSI approved license. However, there exist some differences between the two terms, though they fundamentally mean the same thing – freedom to use, study, modify, and redistribute the software. Hence, in this article, we use the term FOSS to refer to both Free (as in Freedom) and Open source software.

FOSS is often developed in a public and collaborative manner; generally through voluntary contributions from many developers. Over the years, as more and more FOSS software have gained wide-spread acceptance, they are becoming a compelling alternative to commercial and proprietary software, that have been in many areas of software utilization.

The growth and adoption of FOSS is also changing the dynamics of the business of software development. It also ushered in the transition from closed systems to open systems that provide the freedom to use, distribute, modify and redistribute the modifications made to the software of the system. The availability of FOSS without licensing fees and with source code, coupled with the freedom, have been the main factors behind their widespread acceptance and adoption, even in governments of various nations across the world.

The benefits offered by the FOSS model is particularly useful for the developing countries around the world; and the ability to obtain FOSS without licensing fees has proven to be very beneficial to the users in these regions as this makes information and communications technology (ICT) more affordable to them (Nah, 2006). Also, the vast pool of developers involved in FOSS development has made possible to consider options of using such software for ICT-enabled solutions. Also, the principles behind FOSS make such solutions to be ideal for use in the process

of community development. (Rajiv & Jay, 2003; Virginia Report, 2001).

## **TELECENTRES AND COMMUNITY DEVELOPMENT**

A Telecentre is generally a public place, where people living in a geographical region get access to a variety of services, through ICT tools, including computers, Internet, the related software and other digital accessories. The main aim of these telecentres is to support the process of community development, through the use of ICT tools in economic, educational, and social developmental projects and activities for a given community (Katherine & Ricardo, 2001).

Telecentres exists in many countries of the world, though they are called by different names, such as Community Information Centre, Kiosks, Common Services Centre, Public Internet Access Centre etc... Telecentres also differ by the services they offer, the people or the region or the community they serve, and by their business or organizational models. Telecentres may be operated by governments, or through NGOs or through PPP – Public Private Partnership models.

Telecentres have been around the world for a long period of time, evolving continuously with the new technologies and with different models of establishment and sustainability. Telecentres are also viewed as a movement, to bring the benefits of the new digital and connected information society to those under-privileged communities. Case-histories from some of the early telecentres established in both the developed and developing worlds (Fuchs, R, 1998) have been studied, and their analysis indicated much of the commonalities exist in the case of applications, infrastructure, technological innovation etc... A study of the telecentres that have been established in the Latin-American and the Caribbean regions for the developmental activities and their need to promote them in order to bridge the gap between the rich

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