Chapter 3

A Tool for Creating Community Knowledge Objects

Zbigniew Mikolajuk Independent Researcher, Canada

ABSTRACT

International organizations and government agencies have developed and collected a wealth of knowledge resources relevant to poor communities; however, the people who need these resources most often do not know these materials exist or are unable to access or understand them. Electronic sources of knowledge materials and means of communication are rarely integrated with traditional methods of knowledge delivery. This chapter addresses the issue of knowledge sharing with poor communities and presents a software tool for developing multimedia knowledge materials suitable for people with little or no formal education. A multimedia editor uses a data structure composed of multimedia objects (texts, images, video and audio clips) to generate the knowledge browser. Local specialists with a basic knowledge of computing can modify and customize how the knowledge is presented by adding new materials relevant to the local environment.

INTRODUCTION

A body of knowledge built in a community over generations plays an important role in solving contemporary problems. However, this knowledge alone may not be sufficient to deal with the rapidly changing world within and around the community. New problems arising from changing market structures, the introduction of new methods in agriculture, health care problems, social changes, and the activities of government and global development programs require knowledge from external sources - the knowledge that will help the communities adapt to change. These external sources constitute an essential factor in empowering communities and disadvantaged social groups. The empowerment through knowledge is the most visible and meaningful at the community level.

DOI: 10.4018/978-1-5225-7214-5.ch003

Disadvantaged and poor communities must be made aware of availability of knowledge services and their rights to benefit from country and global knowledge resources. We need effective methods and tools for production of knowledge materials based on existing sources of knowledge such as printed publications and electronic materials made available on the Internet as well as on sources of indigenous knowledge.

The external materials must be transformed (translated, localized and contextualized) into knowledge presentations that are appropriate for diverse communities in developing countries. Most of the members of these communities have very little or no formal education or are illiterate and speak only their mother's tongues.

This chapter outlines problems of capturing and sharing knowledge at the community level. Figure 1 shows the scope of issues to be considered in the context of community knowledge management. Access to relevant knowledge or in many cases just knowing that needed knowledge is available is one of the critical issues for development initiatives. In order to reach remote and poor communities with large illiterate and semi-literate population we must design appropriate knowledge capturing and delivery methods, for example, the interactive theatre and visual presentations using traditional or electronic channels of communication. Knowledge materials must concern very specific local issues and be delivered in local languages.

A short story about a farmer in Mindanao, Philippines is an example of the importance of knowledge sharing in a community and the role of modern electronic means of communication. The farmer visited a village that had just established a telecentre. A group of people was looking at the computer screen. He joined them to watch a presentation in his language on how to raise ducklings. He liked the story and tried to apply the newly acquired knowledge. Now, he is one of the richest farmers in his village. (Mikolajuk, 2004).

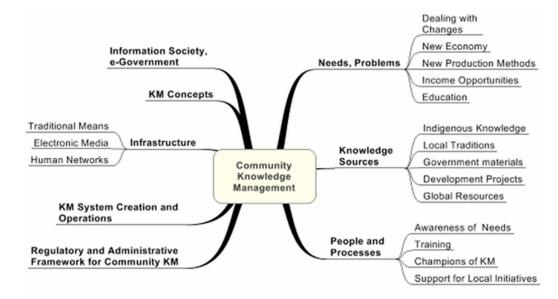


Figure 1. Context of community knowledge management

16 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/a-tool-for-creating-community-knowledgeobjects/211610

Related Content

Unmanned Bicycle Balance Control Based on Tunicate Swarm Algorithm Optimized BP Neural Network PID

Yun Li, Yufei Wu, Xiaohui Zhang, Xinglin Tanand Wei Zhou (2023). *International Journal of Information Technologies and Systems Approach (pp. 1-16)*.

www.irma-international.org/article/unmanned-bicycle-balance-control-based-on-tunicate-swarm-algorithm-optimized-bp-neural-network-pid/324718

Mobile Game-Based Learning

Boaventura DaCosta, Soonhwa Seokand Carolyn Kinsell (2018). *Encyclopedia of Information Science and Technology, Fourth Edition (pp. 6361-6375).*

www.irma-international.org/chapter/mobile-game-based-learning/184333

A Study on Bayesian Decision Theoretic Rough Set

Sharmistha Bhattacharya Halder (2014). *International Journal of Rough Sets and Data Analysis (pp. 1-14).* www.irma-international.org/article/a-study-on-bayesian-decision-theoretic-rough-set/111309

Citizens' Engagement Using Communication Technologies

Olga Fedotova, Leonor Teixeiraand Helena Alvelos (2015). *Encyclopedia of Information Science and Technology, Third Edition (pp. 2709-2718).*

www.irma-international.org/chapter/citizens-engagement-using-communication-technologies/112689

Enhancing Service Integrity of Byzantine Fault Tolerant Applications

Wenbing Zhao (2015). Encyclopedia of Information Science and Technology, Third Edition (pp. 2827-2834).

www.irma-international.org/chapter/enhancing-service-integrity-of-byzantine-fault-tolerant-applications/112702