

COMMUNITY INFORMATICS AND ITS CONTEMPORARY CONCEPTUAL, METHODOLOGICAL AND TECHNICAL ISSUES WITH SPECIAL REFERENCE TO SOCIAL ISSUES

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ABSTRACT

The designing and development of the Information Architecture or Information System to the community or a smaller societal group is the main task of community Informatics. Community Informatics [CI] is to some extent related with Community Information Technology or Community computing but practically Community Informatics [CI] is broader field and interdisciplinary field and intersection of society, people, information and technologies. The advancement of a society; including educational, economical conditions many ways depend on Community Informatics [CI] application and healthy Community Informatics [CI] utilization. It is very much important to launch the Community Informatics [CI] policy for complete sustainable development. This paper highlights the aspects of CI including role, values, differentiate with other computing technologies, methodologies behind this.

INTRODUCTION

‘Interaction and intersection’ both are most important name in community informatics, as it is responsible information collection, selection, organization, processing and management. Though, the main aims of community informatics always provide the technological backup for proper community development. Community Informatics is responsible for promoting awareness of digital media and technologies within the surrounding of community; thus it is directly removing digital divide and information divide. Community Informatics is the prime policy for any developed country and consciousness towards its advance strategies. It is very urgent that Community Informatics [CI] should receive the proper technical, technological support for its actual utilization and better information transfer. Though, methodologies are also important facet for healthy and sophisticated community informatics design.

OBJECTIVES

Some of the objective for which this study has been conducted:-

- To learn about Community Informatics [CI] and its actual need;

- To learn about the role and values of Community Informatics [CI] ;
- To know the nature of interdisciplinary Community Informatics [CI] field;
- To learn the proper way and contemporary technologies involved in Community Informatics [CI] practice;
- To know difference between Community Informatics, Community Computing, Social Computing ;
- To find out the main challenges, issues, related to Community Informatics [CI].

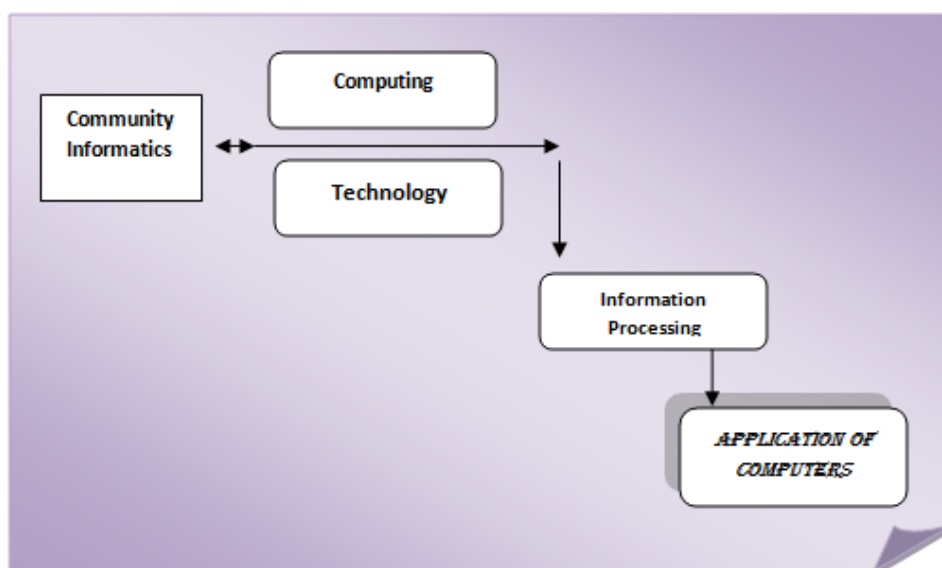


Fig. 1. Showing the relationship of Computers, Technology, Information with people/ community or society

Community Informatics [CI] and Conceptual Issues at a Glance

Actually Community Informatics [CI] has so many conceptual issues. William McIver, Jr; a renowned Information Scientist mention that following are the key issues related to Community Informatics

- For Community Informatics [CI] it is essential to go inside in the MIS and solve the problem in societal context; rather than organization;
- The proper technology and of course healthy information and web architecture is very much essential;
- It is essential that the information systems should be design a manner where most of the common people are able to utilize these services properly;
- A proper and common uniform universal designing must for sophisticated information transfer cycle management;

- People or better to say communities are universal facet thus during design or after design it is essential to check the geographical periphery, the system and what can be done for future potential and sustainable development;
- Going green means a healthy prosperous green society; so for community informatics it is important that the system and mechanism should be eco friendly and energy efficient;
- It is essential that the services rendered by Community Informatics or social Informatics or mechanism should be cost effective and accessible or utilizable to the common public. So, during designing it is essential to check, how many people may avail the opportunities by the concerned informatics solution and some pre requisite, therefore essential like using open source technology, applications, software. Using recyclable devices and mechanism are also key solution to offer community informatics real manner;

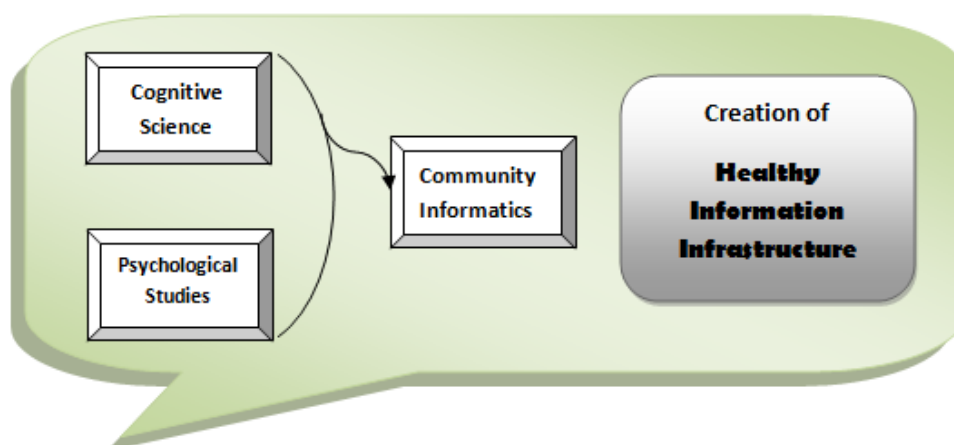


Fig: 2. Depicted the relationship between Community Informatics and Healthy Informatics buildings powered by Cognitive and allied approaches

- Further, uses of Cognitive Science and allied psychological studies have also an impact for healthy community practices. Here social and community parties are essential to consider. Virtually the demand or expectation or simply service requirement of 'a rural Indian' and 'one urban American'; obviously not same. Thus, during designing of Informatics the community technologist or information scientist are also essential to cope up these matters;
- Human centric designing regarding technologies are also key to successful community informatics. Landaur [1995] and William McIver, Jr highlighted that, the weak and less user centric design may ultimately bring a semi successful community informatics practices. Thus, it is essential to build a community informatics with user friendly interface, HCI packed monitor and ailed user friendly devises, software and hardware.

Technical Issues of Community Informatics [CI]

Practically all the issues of community informatics building are more or less associated with each other. Technical issues are the key mover of better informatics practice; whether that is Health Informatics or Business Informatics or Bio Informatics or Geo Informatics.

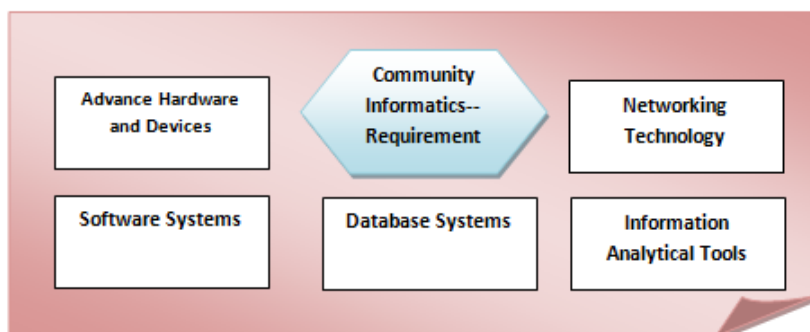


Fig: 3. Highlighted the technological and tools requirement of Community Informatics at a glance

Technical Issues are related with the hardwares, softwares, applications, packages, technological servers, rooms and other. Some of the issues related to Community Informatics [CI] are

- Design and development of information system which should be backed or powered by Green Cloud Based Technologies;
- Development of better Human Computer Interaction and user friendliness with the help of usability engineering principles;
- Preparation of universally accepted, communicated and uniform informatics or information systems when should be cheap and cost effective; for this use of open source or open technologies are essential for both software and hardware development and uses;
- The system should be design in the manner where are disabled a physically challenged can also take the benefit of community information systems. Thus here use of Artificial Intelligence and Expert Systems based NLP or Up Coming spoken web may be helpful;
- The cost effective technologies and service providers are only required to consider. Depending upon financial background the tools, technologies and weapons are essential to use;
- The systems should be able in removing language barriers that is also essential;
- Direct interaction to the common people and common masses are very much essential to build a healthy Informatics Systems;
- The Technologies which are useful and utilizable to the common mass and even literature also essential to check;

- A proper system analysis based design powered by healthy Information Architecture and Web Architecture are two important name for healthy Informatics implementation and Information transparencies;
- Still our society [like data] Digital Divide is an important issues; thus for Community Informatics designer need to Chose only those devices and tools which can use by common people. Thus by this way the problem of Digital Divide may be removed;
- Technologies are always changing , so we here to upgrade the technologies depending upon the development of new tools or product or technologies;
- A proper development, operation and maintenance system should be exist with the community informatics;
- Proper training to the Community people is also an important issue; for a successful community informatics practice. For this the agency or government should implement training, seminar, workshop regarding use of tools and services offered by concerned Community Informatics;

Virtually apart from these condition a healthy Informatics for community needs so many facet like a healthy Information Transfer Cycle; thus we need a scientific acquisition or collection, selection, organization, management and of course dissemination of Information. A healthy Informatics practice also responsible with better handling or operation so we need some sophisticated information or knowledge worker who are not only able in technology but also aware about psychology, cognitive Science and most importantly management and operation research.

Maintenance of all tolls and technologies time by time are also essential to build a better community informatics. A better 'Community Information and Technology' interaction is very much urgent.

Community Informatics [CI] and Social and Behavioral Issues

We already discuss about conceptual and technical issues and so many aspects on society and community or common people. But apart from these some other facet also deals with society and community like

- Awareness and interest of the common people are urgent requirement for complete utilization of community informatics; thus we need a good relationship with community and service provider. Here concerned agency or government departments may offer training and awareness;
- Hesitation, illiteracy and digital divide of 'have and have not' also crucial matter for real life community informatics practice;

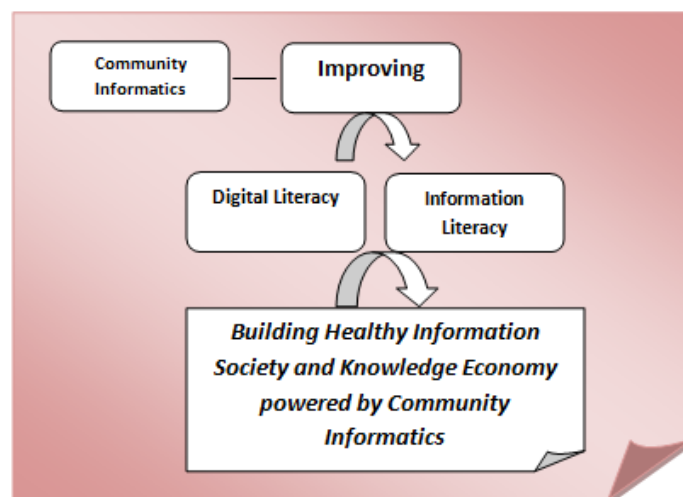


Fig: 4 Depicted the role of Community Informatics for building Knowledge Economy and development

- Use of proper psychological studies needs to be carried out by NGO's , government and community informatics service providers for better utilization of services, information and technologies;
- A better supply chain management is also urgent;
- Unity among the community people is also helpful; as they are always communicate each other. So it also help in removing information divide.

Suggestion and Future Direction

Though our study already indicates some trends on community informatics and indirectly some pre requisite for healthy community informatics, but also needs some pre requisite:-

- Adequate fund and finance back up by the authorities or government or NGO's;
- Proper awareness regarding community informatics; its available services are also essential to highlight to the common people;
- Managing Information Transfer Cycle and simultaneously technology life cycle are important issue;
- Time by time information up dating and technology up gradation are also key to a better Informatics practice;
- A better relationship among the community Informatics stakeholders are essential to provide.

CONCLUSION

Information and Technology both have wonderful role for all round societal development. Virtually, community informatics as Electronic houses provides both of materials [i.e. Information and Technology]. Information Literacy may bring the disparities in between

have and have not, thus it is better to utilize community Informatics as much as possible to make an informed society and prosperous development. Practically indirectly this is also responsible for globalization and helps in connecting community to community, community to larger periphery of the society, and community to nation. Technologies such as internet, web 2.0, social networks really helps in making a 'Knowledge Economy'.

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