

National Knowledge Network: Making the Knowledge flow

When the Cabinet Committee on Infrastructure (CCI) entrusted the country's nodal ICT organization, the National Informatics Centre (NIC), with the responsibility of establishing the Rs 5,990-crore National Knowledge Network (NKN) on March 25, 2010, it signaled the evolution of Indian ICT from an information-based to a knowledge-based orientation. "Knowledge has been recognized as a key driving force and India's ability to emerge as a globally competitive player will substantially depend on its knowledge resources," ... the setting up of the NKN has been recommended to enable "live consultations, data and resource sharing" for successful research and knowledge creation.



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NIC has the technical know how and the experience to set up the physical network infrastructure, that is well within its comfort zone; but once the NKN is up and running, what will it take to get the knowledge flowing in the network? Sans the knowledge, the NKN would be a lifeless entity. We therefore have to know what exactly knowledge is, how it is different from 'information' that we have been dealing with all along, and what precisely is involved in knowledge sharing and management.

The definition of knowledge itself has been a matter of great contention. In *A Primer on Knowledge Management*, **PC Barnes** bases his definition of knowledge on the sequential definitions of data and information. Data, he states, is observations of facts outside any context; information is data within a meaningful context; and knowledge is 'information plus' or information combined with experience, context, interpretation, and reflection within a very highly contextual environment. Knowledge is a high-value form of information that is ready for application to decisions and actions within organizations.

A further distinction is made between two categories of knowledge tacit or implicit and explicit knowledge. Tacit Knowledge is defined as the type of knowledge that is both understood and applied at the

subconscious level. It is knowledge difficult to deliberately express, manifest, or articulate, and is said to be developed, through personal interactions, conversations, storytelling and shared experience. Explicit knowledge, on the other hand "is more precisely and formally articulated, although removed from the original context of creation or use..." (**MH Zach**, *Managing Codified Knowledge*, 1999. http://www.accaglobal.com/student/publications/student_accountant/archive2001/18/57627).

It however does not end at that. In a paper interestingly titled *The Nonsense of Knowledge Management* and published in 2006, **TD Wilson** defines knowledge as something that goes on exclusively inside the mind. Knowledge is what we know; it involves the mental processes of comprehension, understanding and learning. According to Wilson, the problem is that we do not know what we know. What we know is expressed only when we employ the knowledge to accomplish something. What we know can be expressed only in the form of messages conveyed orally, in writings, and through gestures, graphics or even body language. Such messages are however not knowledge but information which another knowing mind can assimilate, understand, comprehend and incorporate into its own

knowledge structures. Even as early as in 1967, **A Schutz** in *The Phenomenology of the Social World* had convincingly established that each person's knowledge structures are 'biographically determined', and hence cannot be identical for the conveyor and the receiver of information. This essentially implies that the same information, even if it results in knowledge, will be different knowledge for different people.

Making people share knowledge across a network could involve what is known as Knowledge Management. PC Barnes defines Knowledge Management as an attempt to improve or maximize the use of knowledge. However, if we were to go by Wilson, knowledge management would be entirely out of the scope of ICT. He goes to the extent of stating that Knowledge Management, as it is being applied today, is nothing more than a management fad and at best a theoretical utopian ideal. Even from the point of view of Zach, it is only the explicit knowledge that can be handled or managed by ICT, and not the tacit or implicit knowledge.

In What is Knowledge Management? published in 2001, **KE Sveiby** seeks a reconciliation when he says that Knowledge Management comprises two aspects: the technology aspect and the management of people aspect or the 'IT Track' and the 'People Track'. ICT has so far concerned itself with the 'IT Track' the handling, manipulation, processing and communication of information that is in turn processed and assimilated by the human mind to generate knowledge. It is now time for ICT to step over into the 'People Track' of knowledge management which concentrates on sharing of knowledge by building up what are known as 'Communities of Practice'. In *Communities of Practice, Learning, Meaning and Identity*, **E Wegner** has defined a Community of Practice (CoP) as a group of people who share similar goals and interests. They employ common practices, work with the same tools and express themselves in a shared vocabulary.

The three main characteristics of Communities of Practice have been found to be Mutual Engagement, Shared Repertoire and Joint Enterprise. The structure of

the Communities of Practice comprises the domain knowledge, the community and the practice. Amongst the main functions of Communities of Practice are information exchange and interpretation, acting as living repositories of knowledge, honing and developing the core competencies of organizations, and providing a sense of identity to its members.

Communities of Practice pass through several stages of development. These include the Potential or embryonic stage at which they are not active, the Coalescing stage at which the similarities are identified, and the Active stage at which the practice is identified and the community becomes active. This is followed by the Dispersed stage of waning activity and finally the Memorable phase at which the community is no longer active. The important thing to know is that Communities of Practice can be nurtured by according legitimacy, linking the knowledge direction of the Community with the broad national objectives, adopting existing practices to foster the growth of communities, fine-tuning organizations to provide ideal conditions for the development and growth of Communities of Practice and finally by providing direct support in the form of resources, expertise, monitoring, etc. to the CoPs.

The National Knowledge Commission has taken into cognisance all of these factors, and has identified broad areas which could be developed and nurtured into effective CoPs. NIC is once again poised to take the cue and lead the way into the land.

*Where the mind is without fear;
And the head is held high;
Where knowledge is free*

Rabindranath Tagore 

For National Knowledge Commission, Report to the Nation, 2006-2009, log on to <http://www.knowledgecommission.gov.in/reports/report09.asp>.