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## Editorial

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**Biographical notes:** Amit Mitra lectures at the Department of Information Systems on a range of topics including knowledge management, databases, electronic commerce, research methods in information systems and public sector ICT deployment. After beginning his career as a Computer Programmer, Amit took up an offer to undertake funded doctoral research at Birmingham University into Geographical Information Systems implementation in British local government. Over the last decade Amit's research has developed through a couple of directions. Applied research to study successful information systems implementations within public sector using socio-technical theories like actor-network theory. A second type of research that requires greater technical evaluation through standard metrics is taking knowledge engineering research into new realms of understanding nature of knowledge sharing. Amit's research work has been published in various peer reviewed journals.

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Organisations over the last 30 years have become increasingly dependent on the use of Information and Communication Technologies (ICTs) to carry out their activities. From the time when such a dependence was challenged owing to the extent of manpower it displaced to the time when use of ICTs today have become a necessary characteristic of most successful organisations, the transition has been truly revolutionary. Almost in parallel to such a change there has been a gradual shift in what ICTs and organisations are expected to process. If it was possible to classify the trend over the last 30 years then 'data' was what got processed in the early 1970s; on the other hand, the late 1980s and early 1990s saw the increasing use of 'information' processing; whilst more recently, the use of 'knowledge' management seems to have become the primary objective for systems and organisational efficiency. Such a transition also suggests a shift in emphasis from the tangible to the intangible in the way resources are valued.

With the ongoing debate on the true nature of knowledge, *i.e.*, whether it is tangible or intangible, the valuing of knowledge assets along with its storage, also continues to challenge the meaning of knowledge-based work. Despite the creation of a large amount of theory over the last 30 years on the nature of knowledge, the world of practice continues to point to virtually negligible similarity within generation and application of knowledge. Only when a narrow perspective is used of single organisations and controlled ambits can the validity of research findings be adequately established. Such subjective outcomes have made the domain, in a sense, more practitioner led. At a time when computing is becoming more ubiquitous than ever, boundaries of organisations are

gradually becoming blurred. Within such a context, knowledge and its management appears to be an abiding challenge that individuals, organisations and even regions are trying to develop new strategies and techniques to handle.

In software development it is common for professionals to be valued according to the amount of experience they have had within industry. While much of the knowledge that these professionals use to develop software may have been acquired through university-based education, another significant component is dependent on the experience that these professionals have gained while working in different jobs. Such a body of experiential knowledge is largely unique and in most situations cannot be replicated through embedding in technology like a microchip. This is where both the challenge and the advantage of knowledge stems from for individual organisations. It is a challenge because like electricity, knowledge storage has limitations. It is an advantage because people working within organisations undergo a wide range of experiences that enrich the work that they do and so build up knowledge resources. This special issue of the *International Journal of Business Information Systems* on knowledge management is therefore useful to assess the nature of knowledge and to find out ways through which organisations may use it to create competitive advantage.

With the realisation that competitive advantage in organisations can only be developed when appropriate resources are available, it is also clear that traditional approaches at developing competitive advantage have limitations. During the last couple of decades, as information has begun to play an ever-important role in organisations and cumulatively among regions of the world, a shift from manufacturing wealth to wealth in knowledge resources is noticeable. Such a transition in the value of assets has also brought about a new range of challenges for organisations. Intellectual properties, human scientific manpower, quality of information infrastructure are all areas that have hitherto never been considered as important as it is in today's world of commerce. In a way these knowledge resources are vastly different from traditional resources possessed by organisations. Therefore, the means to protect and enhance them is also quite different. At one level, the wealth of an organisation lies in human skills and the resources of its staff. At another level, effective exploitation of these resources can lead to gains. But both these dimensions are embedded in a dynamic environment where, on the one hand, the pressures of industry and commerce are threatening people to leave or join organisations, while on the other hand, new techniques and mechanisms of resource exploitation are emerging more rapidly than ever. Just as the paradigm in employment has become more assignment oriented, so has the technology used for development and sustenance of knowledge. While codification and personalisation of knowledge resources is an ongoing pursuit of most organisations, developing secure means of sharing is also becoming a key priority for organisational success.

Numerous commentators, experts and researchers have accepted over the last couple of decades the increasing importance of knowledge as a resource. In an ever-changing business landscape, as outsourcing as a format of developing businesses has become more widely prevalent, competitive advantage has also tended to shift from manufacturing capacity to information and subsequently to knowledge. Gone are the days when learning a few fundamental facts about something would ensure that professional respect could be taken for granted. With the increasing capacity of the internet and the consequent dependence of people on it, every profession is expected to upgrade knowledge through a continual engagement with new and emerging cases. The power of the internet can be gauged from the shift in the way commodities are priced and sold. The

inordinate reach of the internet has also impacted on the way goods and services are priced. From a time when things were priced on cost, today we have a situation where customers' willingness to pay determines prices in a large number of sectors. Willingness to pay is also a factor of the type of domain knowledge that customers have of the sector largely through their dependence on the internet. So from such a perspective, both know-why and know-how have undergone a sea change in the way that they influence our lives.

The special issue on knowledge management of the *International Journal of Business Information Systems* reports on thought-provoking research on storage and dissemination through the first couple of papers on knowledge warehousing and knowledge maps respectively. Romania, China and Ireland are the regions that form the backdrop of the work presented through the next three papers. Uniqueness of context and the dynamics of individual and organisational collaboration are dimensions that have been brought in these three articles. After developing a knowledge repository and other valuable knowledge assets, it then becomes a challenge to ensure that adequate security is in place to guard sudden losses owing to proprietary theft. Such a challenge is examined through the case study on Barings Bank. Finally, tacit knowledge, wherein lies a great number of hidden resources for knowledge-intensive activity, is the ambit that occupies centre stage in the next couple of papers.