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# The Roots of an Emerging Discipline

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# The Roots of an Emerging Discipline

## **Abstract**

{Excerpt} Organizations must become information based: (i) Knowledge workers are not amenable to command and control; (ii) In the face of unremitting competition, it is vital to systematize innovation and entrepreneurship; (iii) In a knowledge based economy, it is imperative to decide what information one needs to conduct one's affairs.

Knowledge is the result of learning and the process of identifying, creating, storing, sharing, and using it to enhance performance has always occupied man. The pursuit of any human activity leads to the acquisition by those involved of know-how about how that activity may be successfully conducted and, insofar as what is learned can be harnessed, subsequent practitioners—even later generations—can build on experience and avert costly rework. Even so, for much of history, applications of know-how were confined to farming and craftsmanship.

## **Keywords**

Asian Development Bank, ADB, poverty, economic growth, sustainability, development

## **Comments**

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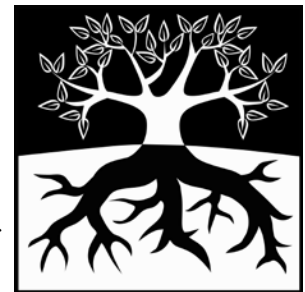
# The Roots of an Emerging Discipline

by Olivier Serrat

Organizations must become information based: (i) Knowledge workers are not amenable to command and control; (ii) In the face of unremitting competition, it is vital to systematize innovation and entrepreneurship; (iii) In a knowledge-based economy, it is imperative to decide what information one needs to conduct one's affairs.

## Preamble

Knowledge is the result of learning and the process of identifying, creating, storing, sharing, and using it to enhance performance has always occupied man. The pursuit of any human activity leads to the acquisition by those involved of know-how about how that activity may be successfully conducted and, insofar as what is learned can be harnessed, subsequent practitioners—even later generations—can build on experience and avert costly rework. Even so, for much of history, applications of know-how were confined to farming and craftsmanship.



## Background

The Industrial Revolution that took place in Britain in the late 18th century, spread to Western Europe and North America in the 19th century, and eventually affected the rest of the world replaced economies based on manual labor with economies dominated by machine tools. Beginning with the mechanization of textile manufacturing, fast-paced technological progress in other industries from the mid-19th century continued into the early 20th century and sparked unprecedented socioeconomic changes. The First World War spread new technology even wider and shaped the modern world. It also laid the seeds of the Second World War, another high point of technological escalation.

In post-industrial economies—a term associated from the 1970s with a phase when the relative importance of manufacturing decreases and that of services and information grows—those who possess knowledge—not land, labor, or capital goods—own the new means of production. Accepting great variations within and across countries, changes from industrial to knowledge economies have since been quickened by the complex series of economic, social, technological, cultural, environmental, and political changes that followed the Second World War. Their practical expression, referred to as globalization, is seen as increasing interdependence, integration, and interaction between people in far-flung locations.

Knowledge has always been transferred in one form or another. In varying forms of complexity, this has been accomplished by imitation; storytelling; written symbols and letters; apprenticeships; primary, secondary, and tertiary schooling; on-the-job discussions with peers; maintenance of corporate libraries; and professional training and coaching and mentoring programs, among others. However, from the early 1980s, expanding technologies for distribution of data and information opened opportunities for the

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**Table: Organization and Culture**

	Feudal Culture	Industrial Culture	Knowledge Culture	Creativity Culture
Organization	Territorial	Hierarchies	Networks	Flows
Focus	Land	Profit	Customer	Innovation
Culture	Domination	Control	Responsibility	Contribution
	Control	Responsibility	Contribution	Creativity
Key Measure	Quantity	Efficiency	Effectiveness	Quality of Life

Source: Author.

development of a fertile environment enabling knowledge to be identified, created, stored, shared, and used for benefit.

*An investment in knowledge pays the best interest.*

—Benjamin Franklin

### The Present

In the knowledge-based economies that emerged in the mid- to late 1990s, information moves everywhere and its effects are pervasive. Irrespective of their nature, actors must organize themselves around information. There are three reasons why large organizations—a form of social institution involved in business (or more recently nonprofit) activities that developed from the late 1860s and is now prevalent—must become information based. The first is that knowledge workers, who increasingly make up workforces, are not amenable to the command-and-control methods of the past. (In a knowledge workforce, the system must serve the worker.) The second, in the face of unremitting competition, is the requirement to systematize innovation and entrepreneurship, this being quintessentially knowledge work. (The implementation of knowledge management processes, systems, and applications has been shown to improve efficiency, forestall knowledge loss, and stimulate knowledge growth and creation.) The third is the imperative to come to terms with information technology: in a knowledge-based economy, an organization must decide what information it needs to conduct its affairs; if not, it will drown in data. (Typically, staff spend about 30% of their time looking for information.)

*Knowing is not enough; we must apply.  
Willing is not enough; we must do.*

—Johann Wolfgang von Goethe

### Prospects

The forces of technology, globalization, and the emerging knowledge-based economy are sparking yet another revolution that is forcing large numbers of people and their organizations to seek new ways to manage themselves. Those tasked with leading must operate under the principle that the unique knowledge that knowl-

edge workers bring to work is the key competitive differentiator. Still, the transfer of knowledge is inherently difficult even with modern knowledge management tools. Those who possess knowledge are not necessarily aware of all the potential applications of what they know. Knowledge is also “sticky” and tends to remain in people’s heads. And so, organizing for knowledge management requires new structures and managerial attitudes.

## Box: Old and New Knowledge Management Paradigms

Old Paradigm	New Paradigm
<ul style="list-style-type: none"><li>• Organizational discipline</li><li>• Vicious circles</li><li>• Inflexible organizations</li><li>• Management administrators</li><li>• Distorted communication</li><li>• Strategic business units drive product development</li><li>• Strategic learning occurs at the apex of the organization</li><li>• Assumption that most employees are untrustworthy</li><li>• Most employees are disempowered</li><li>• Tacit knowledge of most employees must be disciplined by managerial prerogative</li></ul>	<ul style="list-style-type: none"><li>• Organizational learning</li><li>• Virtuous circles</li><li>• Flexible organizations</li><li>• Management leaders</li><li>• Open communication</li><li>• Core competencies drive product development</li><li>• Strategic learning capacities are widespread</li><li>• Assumption that most employees are trustworthy</li><li>• Most employees are empowered</li><li>• Tacit knowledge of employees is the most important factor in success, and creativity creates its own prerogative</li></ul>

Source: Adapted from Stewart Clegg et al. 1996. Management Knowledge for the Future: Innovation, Embryos, and New Paradigms. In Stewart Clegg and Gill Palmer, eds. *The Politics of Management Knowledge*. Sage: London.

## Further Reading

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## For further information

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Asian Development Bank

ADB, based in Manila, is dedicated to reducing poverty in the Asia and Pacific region through inclusive economic growth, environmentally sustainable growth, and regional integration. Established in 1966, it is owned by 67 members—48 from the region. In 2007, it approved \$10.1 billion of loans, \$673 million of grant projects, and technical assistance amounting to \$243 million.

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Knowledge Solutions are handy, quick reference guides to tools, methods, and approaches that propel development forward and enhance its effects. They are offered as resources to ADB staff. They may also appeal to the development community and people having interest in knowledge and learning.

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