

Beyond Knowledge Management

Dialogue, creativity and the corporate curriculum

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Introduction

*We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.*

T.S. Eliot, *Little Gidding*

Aims

The aim of this introductory chapter is to set out the following:

- ▶ **why this book has been written;**
- ▶ **the key ideas that have shaped it;**
- ▶ **the organization of the book and how it can be used.**

The key ideas of this book are creativity, dialogue and the corporate curriculum. The book seeks to engage its readers in a discussion about how they can become knowledge productive (KP) in their work. The key to KP is new learning and learning is shown to be a process that generates new knowledge and understanding. The term 'knowledge management' is not commonly used in this book. This is because we believe it to be a rather sterile term associated with past conceptualizations of management control. Recent developments in knowledge management seem to suggest that 'it is in danger of being hijacked by the IT community and turned into a vehicle for the marketing of new IT systems' (Scarbrough *et al.*, 1999:2). This, we believe, is a mistake. We believe 'knowledge productivity' as a concept offers a different perspective on knowledge. This takes us beyond knowledge management and into the realms once inhabited by the ideas associated with learning organizations. We recognize that in many ways these are just names; however, names are important in the way that meaning is attached

to them and these terms 'symbolise somewhat different views of the world and different visions of what an organisation does or should do' (Scarborough *et al.*, 1999:2).

Experience, theory and practice

This book arises from two kinds of experience. First, our own experience of trying to understand the implications for management practice of social science theory. The process of reading, reflection and research leads us to the conviction that the social sciences provide a resource of powerful ideas that enable those who engage with them to think about their world in fresh and innovative ways. Secondly, the experience of teaching, consultancy and research in a wide range of work organizations – both private and public – that have enabled us to test out theoretical ideas in practice.

We experience these two worlds – the world of theory and that of practice – as a landscape of ideas with boundaries that can be crossed and new territories to explore. The journeys we make in these new territories help us appreciate a very important point that runs throughout this book: management is not a codified body of knowledge. It is not an orthodoxy of belief anchored in sacred texts – though it sometimes has that appearance. It is much more a journey of discovery in which intelligent human beings ask questions about ordinary practices and arrive at astonishingly new conclusions about how their organizations work.

Over time ideas about how to manage and achieve the objectives of an organization build up to constitute a body of knowledge and of 'know-how' that constitutes a form of intellectual capital. In the most knowledge-productive, innovative organizations that capital is continually enriched. Unfortunately in many organizations knowledge is not replenished or put to productive use. We hope our book will address this by providing a different understanding of how to achieve high rates of return on the intellectual capital of the work organization.

Our conviction about the need for this book has been strengthened through reflection on our work with practising managers. We work with many people who are keenly interested in ideas and well able to reflect on their experiences. We have also met others who are not like this. Some managers we meet are so incapable of appreciating the strengths of the people they manage that they actively suppress the creative potential of the people and the organizations they work for. Some people we meet are so indifferent to new ideas that we are astonished they survive in the modern world at all.

A premise of this book is that there are ways of changing work organizations that enable creativity to be released. This premise leads us to our key proposition that there are two basic ways to organize working life. One

enables organizations to capitalize on employees' ideas and the other seeks to suppress, curtail and control. To build on this we further propose that the more managers are aware of the complexities in the two options the better their chances of progress and survival in a complex global economy.

This book develops accounts of learning in the workplace, of strategic human resource development (SHRD) and creativity that enables managers to work with colleagues in ways that promote knowledge productivity, innovation and successful organizational development, survival and progress.

Management orthodoxies

Through engaging in dialogue with practising managers we have become suspicious of the claims made about the nature of knowledge, creativity and learning that are found in the general management literature. Many of these ideas are too 'pat', too neat and simplistic to offer any credibility – we find that they do not sit well within managers' own experiences.

Management is an essential function in all work organizations. Management literature is itself an important element of modern management. It provides managers with a justification for their actions and a research base from which to know what to do. It is a field of writing and discourse heavily dominated by the work of university business schools throughout the world and shaped considerably by a number of leading theorists whose work has become part of that tradition of thinking. Key ideas within this tradition, for example such as ideas empowerment, learning organizations, work-based learning, experiential learning, organizational development, human resource development, add up to a framework of ideas that take on the characteristics of a canon. Repetition of many of the ideas within this canon create a form of liturgy. The ability to use this language fluently – if not always intelligently – has become one of the defining characteristics of a modern managerial identity. For example:

'People are our most important asset.'

'We're in it for the long haul.'

'We respect and value our employees.'

'We seek to delight our customers.'

'Our mission will be achieved by the willing efforts of our people.'

'Empowerment.'

'Personal autonomy.'

'Entrepreneurial.'

'Fostering commitment.'

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Students of management encounter this tradition of writing as a body of knowledge they have to assimilate. In our experience many developing managers find it a daunting prospect to see this literature and to negotiate their way through it. In the face of what global armies of experts say they feel themselves inadequate, that their own experience and understanding of management has little value. They are encouraged to think that the solution to their companies' problems lies somewhere outside both their own experience and that of the organization.

Our concern is that many managers are either too accepting or reject out of hand this literature. As they struggle to see the relevance of theoretical ideas in the complexity of their workplaces their confidence to doubt what the theorists are saying is diminished. Their ability to think analytically and reflectively about their own work experience is inhibited. As a result many managers in many organizations are not as knowledge productive as they might be. Many organizations do not therefore achieve development based on the growing understanding of new modes of practice of their own personnel.

The power of talk

Our aim in this book is to encourage our readers to take their own experience very seriously and to engage in a critical dialogue with the dominant discourse of management theory itself. The idea of critical dialogue is central to this book. Our commitment is to the view that it is through creative dialogue between practitioners and theorists that new knowledge can be generated.

We work with many people who respond with real interest and enthusiasm to some complex philosophical ideas about knowledge, learning, relationships and values. They see immediately the relevance of these ideas to the issues they themselves are struggling with at work. Our hope is that readers of this book will become more confident with some of these ideas and therefore more knowledge productive in their own working environments.

Learning as a social process

Learning is central to the nature of this book. Building on some very potent ideas in contemporary social science we develop a way of thinking about learning that shows it to be a process with the following characteristics.

First, learning is a social activity. It takes place through interaction with other people. Learning is either helped or hindered by the framework of social relationships within which it occurs. Learning is simultaneously a social and cultural activity made possible through the ability of human beings to communicate with one another through a common language.

Language enables us to codify our experience into bodies of knowledge that can be passed from one generation to another. It gives us the ability to build up ideas and to confer meaning, significance and purpose to what we do.

Secondly, learning is a situated activity. What people learn, the pace at which they do so, the quality and depth of their understanding, are very much related to the circumstances in which they have to live and work. When little is required or demanded of people at work it is not surprising they will not display the qualities of curiosity and innovative thinking. It is our general experience that, if given the opportunity, people do rise to the challenges of innovation and creativity and open their minds to new ideas and influences.

Thirdly, all learning involves personal transformation. Learning therefore opens up new possibilities within human social relationships. Through learning people transform their sense of who they are and of the possibilities in their lives. It provides them with a deeply personal measure of how they themselves have changed. New learning inevitably asks new questions about the world and new possibilities in human lives. Learning generates a new sense of openness in human identities and nurtures new hopes. In addition, because learning is so tied up with change, an organization that wishes or needs to change will have to be constantly encouraging its people to learn in order to achieve and progress that change. Learning and change are inextricably linked. Some organizations and settings will nurture this and some will not.

Finally, at least for the purposes of this introduction, learning is continuous throughout life. It takes place in all domains of human experience, and learning in one domain is potentially transferable to others.

Learning is part of human experience – hence the importance of experiential learning in contemporary management theory – but it is not only an individual experience. Only individuals, of course, can learn, but there is a very real sense in which organizations can nurture new learning. The implications of these propositions are profound. They help us to see that for too long most people who have worked in modern economies have been prevented from developing their human potential to the full. Not only have the individuals lost out on the opportunities potentially open to them, but organizations and society at large have lost the benefit of the further development of their most precious asset: their people.

Past, present and future

Defenders of the conventional management faith could point out here that none of these propositions are new. We would have to agree. On the other hand, their full implications have never been fully tested. Despite being well known they are not that well understood or widely acted upon.

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There is no easy slide from theory into good practice. We meet hundreds of innovative managers who are baulked and frustrated by the unwillingness of their organizations to respond to new ideas. There are certainly many work organizations where there is no real commitment to training and development or indeed to change. Despite the importance attached to education and training in the workplace by most governments within the developed economies of the world too much of the training that does take place is narrow, competency based and instrumental. If theory did translate easily into practice and if practice, always achieved its intended outcomes, we would all be living in Shangri-La. As it is, there is a great chasm between the thought and the deed.

We believe that one clue as to why this is so lies in the realization that all organizations exist in three tenses as follows:

- 1 They exist in the flow of time and therefore carry much of their history into their contemporary working methods and practices.
- 2 They function in the present tense, meeting the needs of clients and customers and solving all of the operational problems of their daily work.
- 3 They live in the future, anticipating new developments, planning forward investments and developing strategies for long-term survival.

In some organizations the past is the strongest time frame of the three; in others the pressures of the present are decisive. In all organizations the future is important but is interpreted in different ways: some see it as a framework of opportunity, others as a series of threats. Each time frame provides a way of thinking about the human resources of the organization. Organizations that live in the past can rely complacently on their existing skills and competencies. Those that live too much in the present often ignore their future skill requirements. Some organizations that hope for a successful future do so in the belief that it is people in the future who will help them out rather than those members who work for them in the present.

Our belief is that the successful organizations are those which take these three tenses seriously and draw important conclusions about them for the development of the people they work with. We show in this book the ways in which past skills, ideas and accumulated knowledge can be reformulated to meet the challenges of an uncertain future. We also show that the knowledge and skills of members of organizations are the most precious asset they have and that there are ways to nurture those assets to become knowledge productive.

Management and values

Our contact with managers leads us to see another dimension of their work that is not well represented in the standard discourse of modern management. This concerns the nature of the modern economy and the patterns of working relationships it generates.

Capitalism is a ruthless economic system. It delivers high standards of living for a few, affluence for millions of others, but unsustainable global inequalities and unacceptable patterns of social exclusion. The following facts highlight this tension of inequality and exclusion.

If we could shrink the earth's population to a village of precisely 100 people, with all the existing human ratios remaining the same, it would look something like the following. There would be:

57 Asians, 21 Europeans, 14 from the western hemisphere (both north and south), 8 Africans; 52 would be female, 48 would be male; 70 would be non-white, 30 would be white; 70 would be non-Christian, 30 would be Christian; 89 would be heterosexual, 11 would be homosexual.

6 people would possess 59 per cent of the entire world's wealth and all 6 would be from the United States.

80 would live in sub-standard housing; 70 would be unable to read; 50 would suffer from malnutrition, 1 would be near death; 1 would be near birth; 1 (yes, only 1) would have a college education; 1 would own a computer.

The above list of statistics indicates that millions of people experience the pressures of capitalism as relentless claims to work harder, to be more narrowly specialized, to be more vulnerable economically and to experience work as if it were emptied of all moral significance. Millions of workers experience the future as an uncertain threat.

Individual employees, however, cannot see themselves merely as units of labour in an economic mechanism. They are people with families, with obligations and with commitments to particular communities in particular countries at particular points in time. The tension between the ruthless pressures of the market and the personal commitments of human beings are the stuff of human resource management.

Every modern manager lives within the framework of a legal order – stronger in some societies than in others – in which their decisions have to be legitimate, public and within the law. More than that, all of the complex decisions they make take on meaning within a moral framework that is inescapable. Managers have to judge their actions not only in terms of their efficiency but also by whether or not they are morally correct.

Most of the managers we work with take these issues seriously. The moral and critical thread running through the analysis we develop in this book is therefore not an alien import drawn from another discourse. It is crucial to our understanding of how managers work, and how they arrive at decisions. It is particularly crucial to the ways in which organizations can innovate and develop.

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The twentieth century has provided us with too many examples of moral indifference among managers and of organizations devoid of any moral purpose that were nonetheless successful in achieving their goals. The Mafia and the Nazis, Stalin's KGB and many business organizations that have asset stripped their way to fortune and fame fall into this category. This reminds us that there is an obligation on all of us to question the moral value of the ends that organizations seek to achieve.

In so far as organizational development and change requires new learning, there is an inescapable moral dimension to it. The reason is simple. People learn most effectively when they have good reasons to do so and when their learning is valued.

New learning brings with it new ways of thinking and new abilities. If people are not allowed to act on the basis of new knowledge they will become demotivated and cynical. A part, therefore, of any credible idea of the learning organization (at least in open, democratic societies) is a moral commitment to nurture human beings and live with the consequences of their development. Organizations have to become open to new ideas that are based on new learning. Those that deny people the opportunity to develop are in effect confirming in their practice a moral judgement that some people are inferior and have neither needs nor rights to develop as people. People who are undervalued in this way too often take on as part of their own self-evaluation the negative view others have of them. Devaluing people then becomes a self-fulfilling prophecy. It results in an unwillingness to seek out new learning or ideas. It devalues the human capital of an organization.

Theory and practice

A key proposition in this book is that organizations which take a strategic view of their future and seek to anticipate the knowledge demands of the future will be the ones that are successful. The task involved here is much more than that of knowledge management. It is much more than keeping up to date with key technologies or current practices or management theory. The challenge is to release ideas and creativity and to respond to those in positive ways.

The arguments developed in this book are meant to be practical. In academia we have enjoyed the experience of playing with ideas for the sake of doing so. In our work with organizations we are acutely aware of the problems of turning ideas into action. Managers want action. They need solutions to problems. As consultants we daily live with the tension of being asked to supply specific advice to solve particular problems while realizing that the problems dissolve away into something else if they are approached from a different perspective. We hope this book will enable practical man-

agers and students of management to reframe the way in which they approach what they think of as practical problems.

We have no simple recipes. There are none. Unfortunately too many business organizations waste fortunes purchasing the latest managerial fashion, the latest 'quick fix' to help them change. Our aim in pointing this out is to help people develop a language of ideas and concepts that will enable them to diagnose present-day practical problems in an entirely new light.

The arguments, case studies, illustrations and data upon which the chapters of this book are based provide ample justification of the view that the process of engineering change and development in organizations is itself a process of learning and of becoming knowledge productive. So the thrust of this book is different, for it starts with the assumption that most organizations already possess the resources they need to help them change. To really understand the implications of this is the key challenge.

Organization of the book

Part 1 sets its arguments against the broad backcloth of changes in the global economy, with the aim of highlighting the importance of knowledge in the new information economy. The main purpose of this part is to clarify the observation that the challenge of knowledge productivity goes well beyond that of good knowledge management, and to explore the ways in which all groups of people in organizations can be helped to develop new ways of thinking and interaction with one another.

Part 2 develops ideas and propositions about the nature of expertise and the way in which skills and understanding in work-based settings can be developed further. A critical thread running through these is that of reflection and dialogue. Building on propositions about the nature of human learning these chapters demonstrate that knowledge-productive organizations are the ones which build into their routine practices ways to stimulate, nurture and value further learning among employees.

Part 3 is about organizations changing to become knowledge-productive. We show that all organizations teach and that all organizations, whether they realize it or not, operate a curriculum. There are ways to analyse these corporate curricula that result in innovative forms of training and development and new learning.

Part 4, the final one of the book, discusses change. Theory translates into action when managers understand change. In case studies of successful change in organizations we highlight the key themes of change management for knowledge productivity. These are not recipes for successful change. Each organization must find its own way forward. Since all organizations are unique and manage the time frames of the past, present and

future in very different ways the only generalizations we could make about them would surely be empty ones.

And finally...

None of us can afford to be naive about the size of the task of change. There are many complex interdependencies of different organizations and institutions that in a modern economy influence individual organizations. The social and political complexity of the modern economy has to be understood and appreciated.

A new world has emerged based on global trade and transfers of capital and labour and many attempts have been made to capture its essence. It has been characterized as the 'weightless economy' (Leadbetter, 2000), as the 'network society' (Castells, 1996), as the 'knowledge economy' (Stehr, 1994). Many more such descriptors will emerge to capture the historical transition, at least in the post-industrial economies of the modern world, of economic activity based on industry to that based on information and expertise. In this new economy the nation states play a decisive regulatory role. They do so through dense networks of political alliances and through international bodies to regulate finance, trade and political relationships. Through the complex interactions of all this there arises a new kind of unstable complexity that is a challenge to all management.

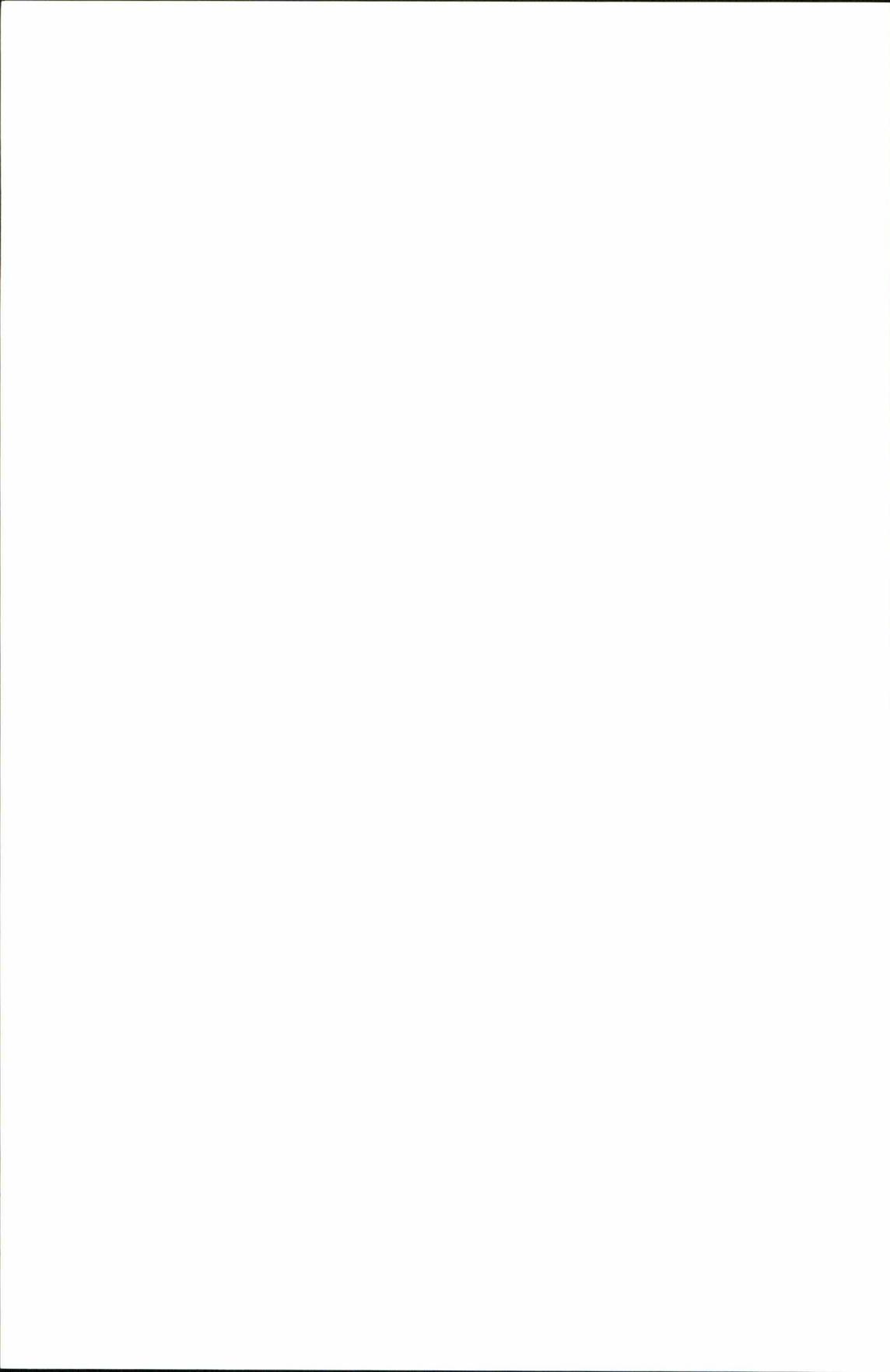
Knowledge-productive organizations are those that can reframe the circumstances of their operation to discover new solutions to the problems they face. By locating the knowledge-productive organization against the complex background of the global, information economy, we hope to enable managers and employees at every level in all work organizations to think about themselves in new ways. We aim to nurture new forms of dialogue at work that will help people escape the constraints of their past and the pressures of the present and build ideas to create a new future.

Our aim is to engage you, our reader, in discussion. We invite you to pause, to reflect, to question and to debate the propositions you encounter. We aim for this book to itself become a catalyst for knowledge productivity, a means to other ends rather than an end in itself. We intend that it encourages discussion – dialogue and reflection – among groups of readers who will assess its implications for themselves and the people they work with.

The book is not written as a recipe book or, indeed, a map. Maps indicate what a journey may entail but can never reproduce the experience of the journey. We hope the experience of working with this book is a voyage of discovery in which you discover more about your own world than ours. Have a good journey!

Part I

The big picture



1

The knowledge economy

*People know what is happening now.
The gods know things of the future,
the entire and sole possessors of all the lights.
Of things of the future, wise men perceive
approaching events.*

C.P. Cavafy, *But Wise Men Perceive Approaching Things*

Aims

This chapter introduces some key themes of the book. These are:

- **the nature of the knowledge-based economy;**
- **the changing climate of management within it;**
- **the role of governments in a knowledge economy;**
- **the nature of learning as a social activity;**
- **the moral dimension of knowledge productivity.**

The essential idea developed is this: in the global knowledge economy the survival and development of organizations demands of managers a disciplined and effective approach to discover, understand and apply new knowledge and ideas. To do this they must develop a climate of enquiry that builds a capacity to help people think both rationally and critically about 'approaching events'. The cliché that captures the force of this point is well known: chance favours the prepared mind. The prepared mind requires a clear understanding of the changing ways in which knowledge is created in the global economy.

The knowledge economy

All economies are knowledge economies. It is not possible to conceive of a form of human economic life that is not based on specialized knowledge of some kind. Pre-industrial economies relied on what is, from our point of view, simple, human or animal-powered technology and the craft skills and understanding associated with its use. From the fifteenth and sixteenth centuries onwards global trade and, later, industrialism, brought new skills, science and technology and profound changes to the fabric of commercial, financial, legal and political life. Indeed it fashioned an entirely new order of human society and experience.

Two ideas that capture this are those of modernity and complexity. Modernity highlights the driving force of ideas such as progress, the rational organization of society, democracy and ever higher living standards. It encodes within itself the belief that human beings can achieve rational control of their lives and the future development of their societies. Complexity captures a key feature of both: the growth of new ideas, knowledge and understanding, driven forward by science and scholarship.

Ours is a world whose complexity is ultimately unmanageable. Not only are social and economic changes always one step ahead of our knowledge, but new knowledge reflects back into the ways in which human societies are organized and change. This phenomenon has been characterized as reflexivity (Soros, 2000).

In the age of science, technology and mass communications, economic life is driven by a competitive search for advantage and profit based on the exploitation of new knowledge. All sectors of the modern economy depend for their survival and growth on maintaining and developing ideas, skills and products that increasingly require advanced scientific, technological and social scientific research. The results of such research are applied in all domains of social, economic and political life, acting as catalysts of social change. The unintended consequences of such change can never be fully mapped out but they require new ways of thinking and understanding. This is the essence of reflexivity and one of the most decisive features of modernity.

Our knowledge of the world is both an imperfect and ordered analytical picture of the realities of our lives. It is also more powerful than that; it constitutes those realities. Our world becomes what we know it and want it to be and in so doing challenges all our previous assumptions about how it actually works, requiring from us further efforts of understanding.

In the advanced sectors of this economy in the most advanced industrial societies of the world change and innovation are programmed into the routine operations of organizational life. The expectation of change – conceived still by many as progress – is pervasive. Change is the norm. The future is

open; no one knows what it will be, but everywhere it is anticipated, planned for and predicted.

'Keeping ahead of the game' has become a *sine qua non* of commercial survival. It requires high levels of investment in research and development (R&D) and long-term plans of human resource development to keep abreast of the pace of change and developments in knowledge.

The frameworks within which new knowledge is generated and disseminated are complex in themselves and they interact with one another to produce new orders of complexity in economic and political life. The knowledge system of the world, still dominated by the developed industrial societies, is an almost unimaginably successful mechanism to generate information and new ideas in all domains of human enquiry. It is a global system with complex political, economic and scientific interactions made possible with new global networks of communication. Our human powers to see and to listen and talk to one another have been extended far beyond biological limitations. Our communications compress both space and time and enable us to see into the distant reaches of our universe.

Complexity within our systems of knowledge is confronted, at least in the developed industrial societies, with a new phenomenon: super-complexity. Ronald Barnett (2000a) has traced out this phenomenon in its implications for the future development of the university, one of the most potent institutions of the knowledge economy. Complexity exists, he claims, as 'a surfeit of data, knowledge or theoretical frames within one's immediate situation' (2000a:6). It is for this reason that no specialist can ever hope to keep abreast of developments within a given field of knowledge. In addition, however, we live in a world where all the frameworks of thinking and understanding that shape our actions and institutions are themselves being contested and challenged. Barnett characterizes this postmodern condition as super-complexity. It defines an intellectual universe devoid of certainty and one that is essentially open to new ideas and ways of thinking.

As will be seen in subsequent chapters, super-complexity and reflexivity present entirely new challenges to those responsible for managing the institutions of the global economy. Unless they are themselves tuned to the super-complexity of their circumstances and actively pursue novel ideas and ways to solve current problems they will be left behind in the economy of ideas.

Within the complex circumstances alluded to there is both tragedy and hope. It is tragic that the political and economic contours of the global economy map out a social world of great inequalities between nations. It is a ruthlessly competitive order that generates both success and failure for countries, organizations, communities and individuals. It is a world dominated by a relatively few, global corporations with wealth beyond the dreams of many nation states and ruthless in controlling world markets. That control is not

just of trade and raw materials; it extends to intellectual capital, to knowledge and ideas and the means to control their dissemination.

Words such as success and failure do not, however, grasp the social and cultural realities of global modernity. War, poverty, despair, environmental degradation, inter-communal violence and the insatiable anxieties of ever higher levels of consumerism are ubiquitous. The horsemen of the Apocalypse maraud their way through many regions of our globe. Global fashions and media dilute local cultures and identities. They nurture new kinds of dependencies and close off possibilities of development of a different kind. Within such circumstances hope has to rest in the knowledge and the belief that it is through new knowledge, made widely accessible, that new responses to problems can develop.

Much of this has now the status of a cliché. Less understood is that this knowledge system sustains a uniquely modern attitude and outlook that is arguably its most precious characteristic: the ability to stand back, to consider what we know and do not know, to identify areas where our knowledge is inadequate. This ability to conjecture and to criticize, to go beyond the constraints of our current patterns of thinking and knowledge and to question all that we know, is both a defining feature of postmodernity and the source of our creativity. That capacity, however, is not uniformly developed either throughout nations or among the organizations of economic life.

A central tenet of this book is that this meta-cognitive capacity is a quality of individual human minds and something that can be nurtured to become a feature of the ways in which organizations of many different kinds can function. The managers of those organizations – nation states, corporations, public services, voluntary groups – that nurture in their colleagues this critical awareness are the ones most likely to become successful and, in our terms, knowledge productive. They will be the organizations best able to handle knowledge and information, to act on the basis of it and to be geared up to keep abreast of the changes taking place around them.

A precondition of this is a clear understanding of the role of knowledge in the global economy and a determination to develop the means to keep abreast of it, translate it into new possibilities and be open to change.

The knowledge system

Consider the work of the following selection of organizations and individuals. Each is structured to undertake or commission research, to review policies, develop programmes that bring together many different groups of specialists, to understand and interpret and report on the complex changes of an increasingly complex world.

International bodies

- the World Bank;
- the United Nations;
- the International Monetary Fund;
- the International Court of Human Rights;
- the North Atlantic Treaty Organization;
- the World Council of Churches;
- the European Union;
- the Organization for Economic Cooperation and Development.

The list is not exhaustive. But these are among the institutions through whose work we come to understand much of the social, economic and political conditions of the world. They are, as the principle of reflexivity reveals, among some of the global institutions whose actions change the global economy itself and through that challenge our understanding of how that economy works.

Nation states

National states organize the search for new knowledge. They do this in several domains. Consider the following:

- science policies;
- military R&D programmes;
- higher education policies and institutions;
- intelligence services;
- policy evaluation programmes;
- think tanks.

Each area of state action listed is organized to generate intelligence, knowledge and understanding and of course not all is in the public domain.

Private commercial organizations

Commercial organizations in the knowledge economy play an increasingly important role in developing new ideas, technologies and products. They do so through R&D, market research, product development technology, through information sharing in trade associations and through training. Companies work closely with governments and higher education. This working relationship has been characterized recently as 'the triple helix' (Leydersdorff *et al.* 1994) to highlight, through the analogy of the double helix, the knowledge-generating capacity within the modern economy.

Universities and research institutes

These institutions generate new knowledge through research and scholarship and make it available through publications. They work in partnership with government and industry and with international research programmes. They are connected to knowledge networks that know no international boundaries.

Professional bodies

Knowledge has been thoroughly professionalized. Professional organizations designed to protect the needs and interests of their members have become guardians of particular knowledge domains. This is clearly true of law, medicine, engineering, architecture, and is becoming increasingly true for a range of new professions. Through their associations they legitimate particular ways of thinking and license practitioners. In the marketplace of ideas the professions seek monopoly positions. In that same marketplace, however, their monopoly is fragile and open to challenge as information once unique to them becomes widely available.

Civil society

Churches, pressure groups, trades unions, local authorities, community groups, leisure clubs, amenity societies and voluntary associations constitute the dense network of social relationships being increasingly characterized as civil society. They, too, generate knowledge and understanding in their own field of action and enquiry. Through the actions of their members society itself changes, challenging all our previous frameworks for comprehending it.

Individuals

Knowledge must be thought of as a collective human achievement. On the other hand, it is inconceivably apart from individual human minds. It is through the work of inventors, scholars, researchers and of millions of unsung, unrecognized individuals who daily solve intricate problems in the workplace or in the community that new ideas emerge. Under the conditions of the global information economy more people can become more aware of the ideas of more people than anyone in the past was able to imagine. This is both a source of almost infinite creativity among human beings and of real instability in the institutions that organize their lives. Expanding horizons of communication are the catalysts of super-complexity.

Such a list of contributors to knowledge is inevitably both incomplete and static. The knowledge-generating capability of modern societies is beyond our capability fully to describe or control. Furthermore, our descriptions can only begin to hint at the complex ways in which the frameworks listed above interact with one another. Governments commission research from universities and private commercial organizations. Government military expenditure funds commercial research and production. The work of international bodies – in law, economics, environmental management and many other areas of global, collective life – feeds into the work of governments, companies and universities.

It all amounts to a dense network of interrelated activities that constitute a knowledge system (Altbach, 1987) in the global framework of a 'knowledge

society' (Stehr, 1994). The lives of millions of citizens are caught up in this framework. Their lifeworlds (Williamson, 1998) – the ways in which they comprehend themselves and their way of life – are patterned and shaped – some say colonized (Habermas, 1989) – by the prevailing frameworks of knowledge and understanding of this global, knowledge-based and fast-changing culture.

Knowledge productive organizations

Powerful political and economic interests dominate this knowledge system in some areas, and some areas of knowledge are highly secret. Global methods of communication mean, however, that knowledge cannot be kept hidden for long. New knowledge quickly becomes part of everyday life because it is translated into products – technology, pharmaceuticals, new materials, transport systems and so on – that become part of the requirements and routines of daily life itself.

Private companies and public organizations have found ways to adapt to this changing climate of knowledge. Successful organizations anticipate change and act upon it; those destined to fail are the ones that remain complacent about their own knowledge productivity and their place in the knowledge networks of the global marketplace. Successful organizations are the ones structured to learn new ways of doing things and to be creative in the way they solve problems and develop business.

Three further dimensions of the knowledge system come into view at this point. The self-critical, knowledge-productive organization is one possessed of arrangements to identify, articulate, consolidate and refine what its members know about their work. It is an organization well placed to build on the knowledge of its members and arrive at new solutions to problems. Of even greater importance is the ability of key managers to identify where their knowledge base is weak and to take action to correct that. Knowledge-productive organizations know what they do not know.

Secondly, the knowledge base of an organization is not simply formal and capable of description in terms of the skills and qualifications of its members. It is also informal, tacit and taken for granted. It includes what its members have come to know to do their jobs, what they have come to appreciate and understand about each other's strengths and weaknesses. It covers their attitudes towards their work and their willingness to work with and for one another. In this sense it embraces those dimensions of organizational life that can only be described using terms such as trust, commitment, respect and loyalty.

When these conditions exist people share ideas and information informally. They help each other solve problems. They think and learn outside the requirements of their own jobs. Without these elements organizations find it difficult to nurture enthusiasm, creative thinking, hard work and the willingness to change that is at the heart of all successful learning and communication.

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Finally, it stands out clearly that all questions about the knowledge economy are embedded in frameworks of morality and law. Manuel Castells (1996) has noted that one of the great beneficiaries and growth industries within the network society is global crime. Crime flourishes in the chaos and disorder of the global economy. The Mafia is a successful, knowledge-productive organization and a global economic player finely attuned to new commercial possibilities. It works well with a range of other organizations and secures its own supply lines of trained expertise. The commitment of its members is absolute and loyalty is a high moral imperative among its members. Yet it is beyond any moral constraint.

These issues are taken up in more detail in subsequent chapters of this book. For the moment it is important only to recall the key elements of the knowledge economy and the knowledge productive organization within it. The knowledge economy is all of the following:

- global in its reach and fast changing;
- driven forward by competition;
- a system for exploiting the commercial possibilities of new knowledge and information;
- organized through international networks of production, management, communication and control;
- dependent on global mechanisms of R&D;
- an economic order that thrives or falters on the quality of the learning which takes place in the organizations that make up its most important networks;
- vulnerable to policy failures, crime and unmanageable risks;
- a morally fragile order of economic and political transactions dependent ultimately on the moral dispositions of people at work, their values, commitments and loyalties.

Work organizations – public and private – in this global economic network can be characterized in many different ways. Crucial to the future of all of them, however, are the relationships they strike up between themselves and the wider framework of knowledge-based economic change. Some organizations will be able to characterize themselves as *knowledge productive*. Others will be trapped in various states of *knowledge dependency* in which their future is uncertain and dependent on the skills and expertise of others. Some organizations are structured internally to be flexible in response to challenges; others are not. Some organizations nurture in their members a capacity and a willingness to step outside the frames of their conventional ways of thinking and doing things. Others do not. Some organizations look outwards and build strong knowledge-productive networks. Others fail in this. The future lies with those who find the means to adapt quickly to changing circumstances and reframe what they know by being open to new ideas and ways of thinking.

The future is not what it used to be!

The changing managerial climate

As a result of the changing economic condition there is a changing managerial climate in Europe and the United States. Ideas about management are changing as business leaders and their academic collaborators seek better models of practice to face the changing business environment. Some employers are recognizing the need for co-operation at work rather than conflict. A firm's survival is now linked to the idea of co-operation between all parties and the notion of 'stakeholderism' (Hutton, 1995) is taking a grip of people's thinking. Thorn Lighting, Joshua Tetley, Ilford Films, The Halifax plc, NatWest, Myson Radiators, Pizza Hut, the Health Service (the list goes on), are all examples of UK work organizations attempting to shift their thoughts towards a more 'humane' way of working.

The move towards this approach has both moral and economic considerations. The economic argument is gaining momentum; 'people mean business' as a slogan has gained much credence. As Kessels (1996a:5) puts it: 'Perceptions of the role of human intervention in economic transactions have changed. Appreciation of an individual's physical labour and ability to regulate and co-ordinate has made way for an emphasis on potential contribution to knowledge productivity'.

Clawson (1996:8) contrasts the 'shift' as a move away from the 'bureaucratic way' towards a 'process way'. The contrast between the bureaucratic way and the process way is shown in Table 1.1. Clawson suggests that in the 'bureaucratic' way the basic assumption is that 'the boss knows best'. In the 'process way' the basic assumption is that the 'process owner knows best'. In other words the person who holds the know-how.

Table 1.1 The contrast between the bureaucratic and process ways

Bureaucratic	Process
Planning	Scanning
Focus on the structure	Focus on the work
Focus on title	Focus on skills
Controlling	Empowering
Enacting	Harmonizing
Excluding	Including
Focus on organization	Focus on customer
Meeting set goals	Continuous improvement
Hierarchy oriented	Team oriented
Results oriented	Relationship and results oriented

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Clawson, (1996: 8–9) goes further by suggesting that human activity occurs at three levels, as shown in Table 1.2.

Table 1.2 Three levels of human activity

Level	Activity
1	Observable behaviour
2	Conscious thought
3	Pre-conscious thought – values and beliefs

(Source: Clawson, 1996, pp. 8–9.)

He suggests that Level 1 is the ‘bureaucratic paradigm’: ‘We do not care what you are thinking or feeling, just do what the job description demands of you and do it well.’ In other words, treating people as a ‘means’ to an ‘end’. He argues that this underpinning logic led to industrial unrest and social division in the past. Levels 2 and 3 are part of the ‘Process Age’, where we realize ‘that to do anything collectively really well, especially in a service-based economy, we need to engage employees as a whole people and to invite their minds and their hearts as well as their bodies to come to work’ (1996:8–9). In other words, treating people as ‘ends’ in themselves.

There is increasing evidence (Garvey, 1999) to suggest that Clawson’s position is becoming a reality. However, it is also clear that moving towards such a position often challenges the whole foundation of management thinking. Traditional perspectives on organizational structure, hierarchies, working environments, policies, training and development need to be rethought to accommodate the notion of knowledge productivity. British Airways (BA) has taken this very seriously and invested £200 million in a new building that attempts to create a different type of physical environment aimed at facilitating good communication, networking and ideas flow.

Niels Torp, the designer of the BA Business Centre and his colleagues in ‘Space Syntax’ (www.bartlett.ucl.ac.uk/spacesyntax/offices/offices.html), studied the movements of people in a number of office buildings. They discovered that the best work is often done as a result of ‘chance’ encounters with colleagues working in different parts of the organization. They observed that the pattern of movement inside buildings is key to the way these encounters occur. Space Syntax’s investigation suggests that the work environment can impact directly on both the working atmosphere of an organization and the effectiveness with which its people interact.

It is therefore important for organizations to capitalize on the ‘usefulness’ of what people seem to do naturally at work – interact. The research suggests that in a well-managed organization management will bring together those individ-

uals and groups that can see a 'need' to interact to tackle a particular problem or project. Buildings could contribute by creating the physical environment that brings people together to interact in ways in which nobody could have predicted. This, Space Syntax believes, may play a central role in innovation within an organization. It seems to be a question of 'management sorts, buildings shuffle', and you need both in equal measure for new, innovative forms to emerge.

The new process paradigm places learning, innovation and creativity as central features of the workplace. And, in this new, fast-moving and complex environment, those who learn are those who offer the greatest potential to the organization. However, it is also the case that in such environments it is rarely possible to predict from where the latest innovation will come. This means that the work organization needs to build potential or strategic capability within its people so that they are ready to adapt, react, respond and innovate. Chance favours the prepared mind and the preparation comes through people being open to rich learning opportunities so readily available in the workplace (this is discussed in later chapters).

The role of government

Knowledge-productive organizations do not function in a vacuum. They are part of a network of relationships – both public and private – that influence the ways in which they develop and change. Adam Smith knew at the end of the eighteenth century that there was much to be gained from competitors in a marketplace co-operating with one another. He had in mind the Sheffield steel industry, in which competing manufacturers benefited from close geographical proximity and could share information on markets, trade conditions, workers and new technologies.

Modern European governments promote regional policies for similar reasons. Some of the most successful regions in the European Union – Baden-Wurtemberg, Paris-Sud, Emilia-Romana, the Thames Valley corridor – and elsewhere in the world, in Silicon Valley in the United States or in the science parks of Japan and Taiwan, all depend for their economic vitality on the synergies derived from co-operation among competitors. This co-operation is promoted through government regional policies.

Policies to promote competitiveness throughout the modern industrial economies of the world work at several levels. There are inter-governmental policies that operate through institutions such as the European Union and its programmes. Individual nation states have their own macro-economic programmes touching on taxation, investment, interest rates and supply side factors such as training and education. Public policies with respect to health, welfare and education are crucial to the long-term viability of commercial organizations for they affect such factors as labour supply and quality. The interactions can be pictured as shown in Figure 1.1.

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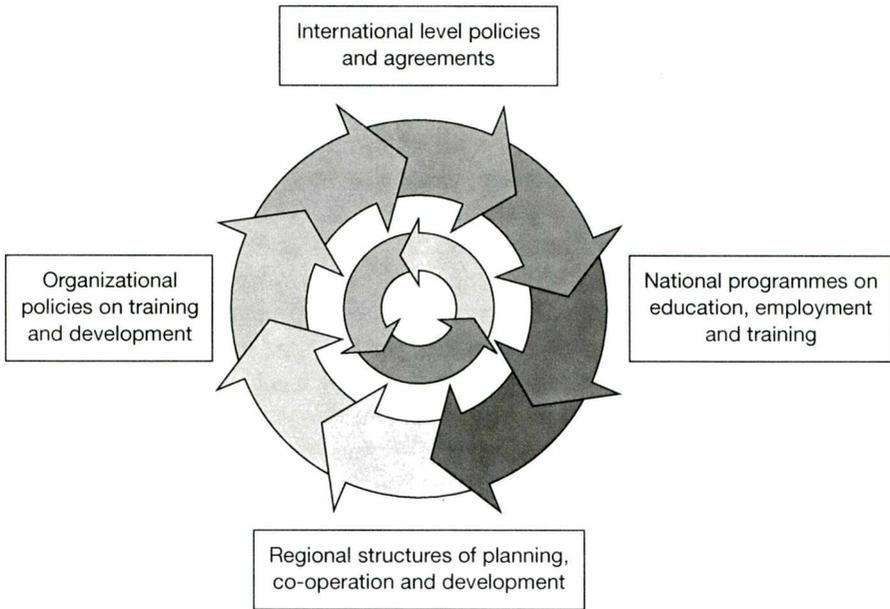


Figure 1.1 Interactions leading to knowledge production

It is widely acknowledged that the political and commercial leadership of countries strike different attitudes towards public policies in the realm of human resource development. For much of the 1980s the British government left such matters to the marketplace, and well into the 1990s took a limited, competency-based view of education and training needs. In contrast, governments in France and in the Netherlands were much more determined to promote effective long-term training and development.

The relative achievements of these different policies in the context of modern Europe can be debated. What is striking about recent discussions about them in Europe is that they are inseparable from discussions about wider dimensions of social inequality and of social exclusion. Policies to promote competitiveness and employability are linked inextricably to those that promote social inclusion and enhanced models of citizenship. For it is now clear that no economy can succeed in the long term if whole groups of people are excluded and marginalized from mainstream society. Social inequality exacerbates poor health conditions, it limits educational opportunities and deepens unemployment. Social exclusion wastes ability and potential and is a terrible cost to the public purse.

Commercial organizations thrive best in conditions of relative economic stability and in countries where the social infrastructure of society is in good shape. There are no guarantees, here, of course. Much depends on how well

companies themselves respond to the policy environments in which they operate and the climate they create. These environments and climates may either value innovation, learning and development or stifle it.

Knowledge-productive organizations are those finely tuned into the possibilities of public support for their commercial effort. They are the ones that seek partnerships with government, local government and development agencies; they value further education and training; and they participate in the public domain to promote their work, acknowledge their links with the professions on whose expertise they depend and build strong links with their local communities. They are the work organizations which recognize that society does exist and it does matter.

Learning is a social activity

The implications of the previous section become clear if we accept that learning is something that all people do and it tends to happen as a social activity. There can be little doubt, as will be shown in subsequent chapters, that learning happens in social contexts through social discourse and dialogue. Therefore, productive learning happens in certain social environments (Polanyi, 1958; Argyris and Schon, 1981; Nonaka, 1991; Boisot *et al.*, 1996). The reverse is also true. Some environments may hinder productive learning processes and may foster learning that is unproductive or unhelpful to the progression of the organization. This is an aspect of what Egan (1993) calls the 'shadowside' of an organization. The implications of this are serious, for it is well understood that people in the workplace have as much capacity to sabotage the organization as to contribute to it. As discussed earlier in this chapter, the assertion that learning is a social activity and has the power to add or take away value may present a huge challenge to the structure, management and physical environments of organizations.

In a knowledge economy managerial concern for control, power and authority are inappropriate conditions for learning. On the other hand, the 'core conditions' (Rogers, 1961) of an effective learning environment include the following:

- self-organization and genuine flexibility;
- creativity and open dialogue;
- individual responsibility, control and authority;
- security, empathy;
- extensive and open information exchange;
- a climate of trust based on mutual respect and genuineness;
- unconditional positive regard for other people;
- an ability to communicate all these to others (Rogers, 1961:281).

Learning to be knowledge productive – the moral dimension

Implicit in the ‘core conditions’ are a number of moral considerations.

Fredrick Taylor and Henry Ford, the grandfathers of ‘scientific management’, would have recognized that the idea of learning in the workplace to achieve economic prosperity was an obvious one. It is not a new concept. However, Taylor and Ford ignored the moral dimension and simply focused their attention on financial reward for ‘trained’ people or, in other words, treating people as a ‘means’ to an ‘end’. They did not want their staff to ‘think’ – just to do what they were trained to do, like human machines.

In the context of a modern capitalist community the issues of manipulation, control and the abuse or use of power within a learning environment cannot be ignored. This is because, as Jarvis (1992:7) put it, ‘learning, and perhaps knowledge itself, has significant moral connotations’. Jarvis argues that the moral dimension is inescapable in learning and knowledge acquisition. He traces his argument to the myth of Adam and Eve. Before eating from the tree of knowledge both were innocent, but afterwards they had acquired the knowledge of good and evil. Some theologians describe this event as ‘the fall’ but:

Archbishop William Temple once commented that if this was a fall, it was a fall upwards! Perhaps this is the greatest paradox of all human learning – the fact that something generally regarded as good has been intimately associated with a myth of the origin of evil in the world ... learning, and perhaps knowledge itself, has significant moral connotations’ (Jarvis, 1992:7).

Given the now pervading view that management is about ‘achieving results through people’ the implications of this are considerable, for the moral dimension is implicit in the statement. Organizations that ignore this may find problems in implementing such a statement.

There are always two imperatives in business – effectiveness and efficiency. Both are important and yet there is an inherent conflict between the two. Effectiveness is related to the quality of an activity and efficiency is linked to time. There are human tensions between these two business imperatives ‘to do things *effectively* is not the same as to do them *well*’ (Harrison and Smith, 2001:199). It is interesting to speculate ‘whether one would prefer to be managed by the good manager or the effective manager, let alone the efficient one’ (2001:199). These natural tensions may be resolved through flexibility, innovation and creativity. But these things require new ways of thinking and changes in the organizational narrative in areas such as power, status and control. It is very difficult for a manager to empower. The conflict here is similar to the tensions that naturally occur in learning.

Kolb (1984) clearly argued that learning from experience is a process and not a product or outcome. The process is viewed as cyclic but within the

cycle are tensions. Kolb's model offers two aspects of learning: gaining experience through action and gaining experience through reflection. Action-based experience leads to 'apprehension' whereas reflective experience leads to 'comprehension'.

Kolb (1984) suggested that experience gained during action or testing is 'concrete experience'. Experience that is gained through apprehension may involve feelings of the 'heat' of the situation, the mood and the ambience; while the concrete experience will include a whole range of events, some of which will be tangible and others intangible. The resultant knowledge is 'accommodative knowledge'.

Inherent in Kolb's model of learning are paradoxes and conflicts and it is these very tensions that create the conditions for learning. A task may be performed identically by two separate individuals and the resultant concrete experience may be completely different but just as relevant. The implication here is that the 'one best way' philosophy has no place in a true learning environment and the resultant management approach of scientific method is also redundant.

Activities at work that involve learning have been linked with faster achievement and 'fast tracking' (Clutterbuck, 1992; Garvey, 1995a). There is a danger here that organizations wishing to accelerate learning may be looking for a quick return on investment. Quick return learning tends to involve knowledge or skills transfer where there are clearly defined inputs from the 'teacher' and clearly expected and demonstrable outputs shown by the learner. The emphasis is on efficiency at the expense of effectiveness. The argument is very strong. As Kessels (1996a:4) puts it:

organisations have a direct stake in the personal enrichment of employees because excellence on the job requires employees who are comfortable with their work and who have strong and stable personalities. Personal enrichment is thus less an employee privilege than a condition for good performance.

Kessels is throwing down a big challenge to managers.

There are many challenges in taking knowledge and learning 'beyond management'. Specialization needs what some Dutch colleagues call 'lummel' time. Lummel time is an acknowledgement of the need to be 'seriously playful' at work and to be 'playfully serious'. Creative energy comes from this recognition of the need for space. An organization that is alert to learning will invest in anything which enables its people to see themselves as learners. People need security to 'get on with it' and support to use their time wisely.

Clearly, the implications for human resource management and human resource development are considerable and Pfeffer (1998:65) suggests that for an organization to achieve economic prosperity in the knowledge economy it needs to pay attention to seven factors:

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- 1 Employment security.
- 2 Selective hiring of new people.
- 3 Self-managed teams and decentralisation of decision making as the basic principles of organisational design.
- 4 Comparatively high compensation contingent on organisational performance.
- 5 Extensive training.
- 6 Reduced status distinctions and barriers, including dress, language, office arrangements, and wage differences across levels.
- 7 Extensive sharing of financial and performance information throughout the organisation.

Human resource specialists need to stress these points for each one will directly influence an individual's ability to deliver efficiently and effectively.

Further, the term 'human resources' is (in a learning climate) a misconceived expression because this implies that people are resources just like plant and machinery and as such need controlling and managing. While in some industries this may be the case we argue in this book that if people are treated with disrespect they will respond in kind. Management can no longer talk 'loyalty', 'commitment' and 'trust' on the one hand and repay them with redundancy and job insecurity on the other. Such behaviour is immoral and has no place in a knowledge-productive environment. (In March 2001, the steel company Corus announced the closure of its plant in Wales. This decision followed years of employee co-operation and participation to secure their future.)

In conclusion we offer four aspects for consideration in a learning climate that is effective, efficient and moral. The organization needs to build:

- confidence;
- competence;
- collaboration;
- communication.

These will help to create a climate that includes the core conditions for learning and in turn the product of learning, knowledge, may be exploited for economic prosperity.

It is essential to consider the moral dimension because, at the risk of being painfully obvious, if an organization 'treats people well, they behave well; if it treats people badly, they behave badly'. This was understood at the time of Mayo's Hawthorne experiments in the 1930s, which offered a moral challenge to business. How much progress have we made since then?

2

Strategy, capabilities, knowledge productivity and the corporate curriculum

*There is a tide in the affairs of men
Which, taken at the flood leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and miseries:*

Shakespeare, *Julius Caesar*, Act 4 Scene 2: 265

This chapter extends our account of the broad social and economic frameworks of knowledge productivity. Our aim is to develop a way to understand the contexts and the environments in which organizations function. We believe that for knowledge productivity to ‘work’ in organizations managers themselves need to work out the implications of these ideas for the specific circumstances of their own organizations. The chapter looks at the links between strategy, capability, knowledge productivity and learning.

AIMS

The main themes are:

- **social science assumptions;**
- **the relationship between the past, the present and the future;**
- **the competitive context, strategy and capability;**
- **introducing the corporate curriculum and linking it to knowledge productivity and strategic capability;**
- **becoming knowledge-productive and building capability.**

Social science assumptions

Throughout this book there is a constant cross-referencing between theory and practice, ideas and interpretation. We see social science as a collection of ideas from which we all draw selectively. The challenge is to understand them and use them wisely and critically and with clear intention, and never merely by default or simply because they are fashionable.

Subjectivist vs objectivist paradigms

The first assumption in this chapter is that all work organizations, large and small, public, private and not-for-profit, are complex social systems. Because of this they operate by complex social 'rules' that are often ill-defined, vague, emotional and 'messy'. The following may help to explain this.

Theories of social science have evolved and changed over many years. The way we come to understand our society is often as a result of a complex interaction between such ideas and the societies in which they are embedded. There is a natural dynamic between the creation of theory and the lived experience of individuals and groups in what we often refer to as the 'real world'. This dynamic helps to establish beliefs and values and influences the ways in which people think and behave. For example one perspective, as put forward by Burrell and Morgan (1979) could be to view communities through the 'subjectivist' paradigm. If this is the case the basic, core knowledge (ontology) of the 'subjectivist' is that of 'nominalism'. Societies are observed and described through a naming process and one name is perhaps as good as another. The fundamental approach or epistemology of the 'subjectivist' is the notion of 'anti-positivism'. This is where human affairs are seen as indeterminate, highly situational and only understandable within specific social and cultural contexts. The 'subjectivist' believes that human social organization is based on negotiation and choices. Finally, the 'subjectivist' believes that the best approach to understanding human activities is through a multi-layered description that simultaneously interprets the world being described.

To counterbalance this, there is the 'objectivist's' perspective. Here the ontology is rooted in 'realism' and the epistemology is 'positivism'. The assumptions made by the 'objectivist' are that human nature is deterministic and predictable, and therefore the approach to investigating human affairs is about scientific method aimed at conclusive proof and the finality of naming the condition under examination.

The links to the concepts of 'modernity' and 'complexity' as outlined in Chapter 1 are evident here. The 'modernity' concept is more about 'objectivism', whereas the 'subjectivist' is more closely allied to the 'complexity'

perspective. One sees the world as a framework of facts and things; the other as a realm of meanings and particular ways of understanding that vary between cultures, and that all changes through time.

Conflict vs order

Another perspective on human affairs may be characterized by positions taken on 'conflict' or 'order' within society. Table 2.1 expresses these paradoxes.

Table 2.1 The paradoxes of 'conflict' and 'order'

Conflict	Order
Coercion	Commitment
Division	Cohesion
Hostility	Consensus
Dissension	Agreement
Conflict	Co-operation
Malintegration	Integration
Change	Stability

In the 'sense of order' domain, the fundamental assumptions are as follows:

- All societies are relatively persistent and stable.
- All societies are well-integrated structures.
- All aspects of a society have a function and contribute to the maintenance of the structure.
- Every functional element of a social structure is based on a consensus of values among its members.

In the 'conflict' domain the fundamental assumptions are the following:

- All societies are subject to processes of continual and constant change.
- All societies display dissensus and social conflict constantly. Conflict is a continuous state.
- Each element in a society contributes to its disintegration and change.
- All societies are rooted on the coercion of some of its members by others.

Regulation vs Radical

A further layer to add to this background are the views taken by social scientists on change. Some see change in social settings as a 'regulated' process, others see it as a 'radical' process, often with unintended and unanticipated

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outcomes (Table 2.2). In the first perspective change is thought to be predictable; in the latter, all futures and all planning are uncertain and open.

Table 2.2 The paradoxes of change

Regulation	Radical change
Status quo	Radical change
Social order	Structural conflict
Consensus	Modes of domination
Social integration and cohesion	Contradiction
Solidarity	Emancipation
Need satisfaction	Deprivation
Actuality	Potentiality

Conclusions

The main point illustrated by these opposing perspectives is that individuals and groups may adopt such beliefs and positions on how society works and then make decisions and enact behaviours based on their particular set of beliefs. Such perspectives are part of society. They may not have been 'taught' but they circulate through social interactions and create a 'dominant narrative' that is passed on from group to group, individual to individual.

For example, the 'objectivist' perspective will value rationality in the structures and systems in the organization and will therefore seek to develop a detailed, planned strategy for the organization. (This is discussed later in this chapter.) As to the model of 'conflict' and 'order', arguably, for example, the concept of human resources management is based on the 'order' paradigm or 'unitarist' agenda, while the 'conflict' model is part of the 'pluralist' agenda. With regard to change, some believe that change is only achieved through radical means and others believe it to be incremental and regulated. Some believe that in management now there is a neo-unitarist or neo-pluralist agenda as we move towards an appreciation of teamworking and diversity. The concept of 'super-complexity' as outlined in Chapter 1 applies here. 'Super-complexity' is perhaps related to the 'neo-pluralist' perspective.

These assumptions form a backdrop for decision making, strategy formulation and policy creation. They also help to account for the complexities of human response in the changing circumstances of the workplace.

We believe (and there is much evidence to support this) that western management is dominated by the concept of the 'pragmatic, rational manager', and when this is overlaid on the complex social system of the work organization as outlined above unpredictability results. The pragmatic manager

attempts to control and manage the system using rational and pragmatic approaches, which sometimes work and sometimes fail. Predictability is fast becoming a redundant concept in the knowledge economy.

Another assumption is the pace of change in organizational life, which is influenced by technological change and that political initiatives has accelerated. The implications of this fast-changing and competitive climate on individuals are considerable. The need for people who are able to adapt to change rapidly, be innovative and creative, be flexible and adaptive, learn quickly and apply their knowledge to a range of situations has increased. The whole nature of work appears to be changing and the notion of having a career for life is transformed.

One response to this situation has been a growing tendency, in both the public and private sectors, towards 'objectivity' and 'rationality' in all work activities. Scientific method applied to organizational life has become a dominant preoccupation of managers. The exponential growth in performance league tables for organizations and performance objectives for individuals provides evidence of this. This mode of thinking aims to establish systematic bodies of generalized knowledge or explicit rules and procedures. It sets out to specify objectives and learning outcomes. It then becomes possible to judge success in learning if these outcomes or objectives are met.

The merits of this approach include the possibilities of accountability and quality control. The emphasis on outcomes should not preclude attention to 'process' and the relational aspects of learning, but it often does. The result is that the 'hegemony of technique' (Habermas, 1974) can only engineer that which has been prespecified (Bernstein, 1971). This 'outcome' approach is effective in getting us to where we want to go but it cannot develop our awareness of the different sorts of destination available, nor does it promise that travelling to them will enrich us despite the destination. The following extracts from Cavafy's poem *Ithaca* (1911) illustrate this point very well.

When you set out on your journey to Ithaca,
pray that the road is long,
full of adventure, full of knowledge ...

Always keep Ithaca in your mind.
To arrive there is your ultimate goal.
But do not hurry the voyage at all ...

Ithaca has given you the beautiful voyage.
Without her you would have never set out on the road.
She has nothing more to give you.

And if you find her poor, Ithaca has not deceived you.
Wise as you have become, with so much experience,
you must already have understood what Ithacas mean.

The 'outcome' approach cannot be adequate to guide the learners in an organization if they are to be capable of flexibility, innovation, creativity and improvisation – the widely agreed qualities required of the learners of the future. It has been maintained that 'genuinely interactive and collaborative forms of reasoning' (Barnett, 1994:37) are in danger of being driven out by technical or 'strategic' reasoning.

Past, present and future

Time is an inescapable dimension of human experience. Any satisfactory account of how an organization (and the people within it) works must attend to the ways in which lives are constructed in time and are changing constantly.

Our 'pasts' are in our 'presents' but we are not often aware of this – we simply 'get on' with our lives. There are times when the 'past' confronts our 'present' and this tends to happen in 'moments' of awareness or significance. These points can be clarified in three propositions about how people relate to their past.

Proposition 1

We may choose to live in the past and function on the basis of traditionalism, using expressions such as 'We have always done it this way ...' This has the effect of making people resistant to change as their basic reference point for action in the present is their traditionalism and perspectives on how actions are taken and decisions are made from their particular perspective on their history. However, it is often the case that the tacit assumptions that frame everything people do in an uncritical celebration of the past act as a guide to everything that is done in the present and the future. This is despite a strongly held perception that the organization may feel itself 'modern' – the tried and trusted paths dominate.

Proposition 2

We may choose to reject our past or rewrite our history. This has the potential effect of devaluing our past and making it worthless, or we may apportion blame, attach guilt or have a 'rose-tinted' perspective on our history. This attitude often prevents people in organizations from learning from the past or encourages them to suppress its continuing influence on their present-day actions.

Proposition 3

A third option attempts to build on our past by understanding it profoundly. We do this through adequate reflection on our past and through critical awareness of it. This requires openness, a willingness to be critical, to learn and to change. It invites people to take risks – with their reputations, status and careers. For some it will be a painful realization that cherished beliefs were misplaced, that attitudes were unhelpful. It is not easy, though, we suggest, it is necessary to confront the past in this way. Otherwise it becomes our prison.

One way of thinking about this is to consider the idea of the significant moments of change in our lives. Of course, these can often be understood only in retrospect. And, as time changes, perceptions of moments and significant turning points may alter. How people talk about and analyse critical moments in organizational history is often a real clue about the defining character of an organization's culture.

Moments

Defining 'moments' happen in the workplace. We cannot control the 'moments', only our response to them. In an increasingly complex working environment the opportunities that present themselves are unknowable, complex and often happen quickly. People respond to these 'moments' by referencing their past. As we cannot predict from where or when these 'moments' happen we can only prepare for our response by understanding our past. This is another example of 'chance favouring the prepared mind'.

We speculate that proposition 3 offers the most potential for organizations to realize a positive future that does not repeat the failings of the past. Proposition 3 contains profound implications for SHRD. For organizations to realize their futures they need to understand their 'pasts' because the past is the backdrop of actions and decision making. An organization's past is remembered through the dominant narratives within its culture. The writer Salman Rushdie expresses this point as follows:

Those who do not have the power of the story that dominates their lives – power to retell it, rethink it, deconstruct it, joke about it, and change it as times change – truly are powerless because they cannot think new thoughts.
(Quoted in Williamson, 1998)

According to the psychologist Jerome Bruner (1985), people shape meaning from the past through narrative, metaphor and stories. Often, in an organizational setting, the perspective we have on the past is created by the holders of the power and those who dominate the narrative. Karl Marx gives us an insight into this with the following:

Men make their own history, but not of their own free will; not under circumstances they themselves have chosen but under the given and inherited circumstances with which they are directly confronted. The tradition of the dead generations weighs like a nightmare on the minds of the living. (Quoted in McLellan, D, 1971: 207)

A legitimate question to ask at this point is 'So what? Enough of the theory and more of the real world.' Thus says the pragmatic, rational voice within.

There are many answers to the 'so what' question here. The core of these points about the 'past', the 'present' and the 'future' is that if organizations are to be prepared for an uncertain future they need to be completely open to learning 'as' experience as much as learning 'from' experience. The challenges of the competitive context in the modern world, dominated by the capitalist doctrine, are the reality. These are the 'real world' and they impact on all of us. How we respond to the 'real world' will depend on the dominant narrative within our organization. If, for example, the narrative is dominated by the pragmatic manager or by the 'technical' perspective decisions will be made against the pragmatic and technical backdrop and any alternative perspective may not even be considered. This is not to denigrate the pragmatic perspective, which can often be very helpful but may not offer the best opportunity for creativity, flexibility and innovation – the essentials of the fast-moving knowledge economy.

The competitive context

The competitive environment of modern economic life is a challenge to all work organizations in all sectors of the economy and civil society. The notion of 'strategy' is important here, but there are many varying views taken on strategy.

One approach, as outlined by Stacey (1995), suggests that strategy is a rational process in which organizations can make choices in relation to their operating environment. The assumption is that environmental changes are largely identifiable and consequently the organization rearranges itself to adapt to changes in the environment. Linked to this is the idea of the 'ecology school'. Here, organizations adapt and survive on the basis of competitive forces and, as there are a limited number of adaptations possible, those who get there first will survive and those who don't will fade away.

Both these perspectives are of the 'objectivist' school. Stacey (1995:476) suggests:

In both cases irregular behaviour occurs because the environment bombards organisations with events that agents within them have not foreseen (random shocks) or cannot deal with. Any disorder is therefore viewed and interpreted as the consequence of ignorance, inertia or incompetence.

These perspectives naturally raise the issues of 'intention' or 'emergence' in strategy. It is our contention that the dominant narrative or, put another way, the construction of the organizational history determines the strategic perspective adopted. This also means that it will be the dominant actors who determine how successful the strategy has been *post hoc*. This is not necessarily a rational evaluation but one that is influenced by the social politics of the organization – therefore we strongly challenge the notion of 'objectivism' and 'intention' in strategy.

A further perspective is linked to the ideas of 'choice' and 'determinism'. The ecology perspective states that the survival and progress of an organization is determined by its

initial institutional and resource choices, its inertia and the subsequent changes in the environment. According to strategic choice theory, organisations are not so constrained by inertia but success still requires that an organisation be adapted to its environment – this implies a deterministic relationship. Stacey (1995:477)

Another perspective on strategy is the 'resource-based view' as expressed by C.K. Prahalad: 'If you are committed to continuity and change, then you need to focus on resources' (1997:64).

In short, it is about examining all resources and maximizing their use and contribution to the organization. With, for example, plant, machinery and finance it is often easier to find ways to exploit their use, but with people as a resource exploitation is morally wrong and, from a competitive perspective, not sensible. We have already raised the idea that if we treat people well they behave well and that if we treat people badly they behave badly. Yet managers continue to forget this simple fact as organizations downsize, rightsize, cut and chop – basically, the folly of focusing on one resource at the expense of another. David Skyrme highlights this with his comment that: 'Human capital – competencies – are a key component of value in a knowledge-based company, yet few companies report competency levels in annual reports. In contrast, downsizing is often seen as a positive 'cost-cutting' measure.' (www.ionet.net/~jburch/c9612ke.html)

Another risk is that the pragmatic manager could spend too much time in the analysis and planning phase of strategy formulation at the expense of implementation. This is a natural way of behaving as the pragmatic manager sees analysis and planning as 'real work'. This concept is reinforced by the well-known time management slogan 'Failing to plan is planning to fail.'

However, analysis and planning do not in themselves generate new ideas. Experimentation, alertness and awareness – the knowledge-productive way – do. In the dynamics of the knowledge economy it is new ideas, implemented and brought to market quickly, that count.

These couple of pitfalls alone mean that the resource-based strategy must take a holistic perspective. This takes into account all resources and considers how they may interact. A resource-based view includes both tangible and intangible resources alike, for example brand name, location, proximity of raw materials and people (Hall, 1994).

Any resource-based strategy in a fast-changing environment must be subject to constant change and review driven by the interactions and variable dynamics of the internal and external environment, and tangible and intangible resources. These interactions create opportunities and it is only people who are capable of spotting, creating and exploiting opportunities in the dynamic environment of a knowledge economy. As Campbell and Alexander. (1997:44) point out 'the basic ingredient of a good strategy [is] insight into how to create value'.

Organizations are complex social systems and are full of paradoxes and contradictions. It is likely that in some cases and in certain situations managers may be able to control environments and be able to exercise choice and therefore be capable of managing towards a prespecified end point. It is also likely (more so in a knowledge economy) that the social system of the work organization located within 'super-complex' networks and interactions will spontaneously self-organize. The 'actors' involved in this situation will not be able to predict and control towards a specific end. In such an environment the behaviour of the actors is determined by the dominant narrative. However, 'irregularities and disorder can occur ... individuals are free to disrupt institutions' (Stacey, 1995:480). Success, however understood, in this environment is therefore the process of creativity, innovation, flexibility and emergence.

These different perspectives on strategy within the framework of 'super-complexity' clarify the question: 'What does it mean for people in work organizations?'

We believe that it is vital to build capability (or insight) within an organization through learning. However, the conventional view of training and development is that it should be closely allied to the organizational strategy. In the knowledge economy strategies have to be dynamic, changeable and, to an extent, opportunistic. They need to be rooted in learning that develops alertness for 'scanning', interpreting and understanding the environment (see Chapter 1). So what does this mean for training and development? This too must be dynamic, changeable and opportunistic. It must recognize both tacit and explicit knowledge and be aimed at developing learning, thinking people, alert to their environment and willing to contribute and participate in the activities of the organization as whole people who can be 'themselves' at work (Garvey and Alred, 2001).

The corporate curriculum framework

One way to take these ideas further is to consider the notion that an organization can be conceived as having a curriculum, a framework of order and values within which learning takes place. The idea of curriculum is central to all debates about education and training. It is actually central to any credible account of culture in organizations. A curriculum is a programme or course of study. We believe that this is an appropriate term to use in the context of workplaces.

According to educational curriculum theory, put forward by Bernstein as long ago as 1971, it is important to decide on the following:

- valid knowledge;
- valid pedagogy;
- valid evaluation;
- valid realization.

For any curriculum this is, by its nature, specific to certain contexts and situations. According to Bernstein there are two main elements to a curriculum – the ‘formal’ or ‘closed’ curriculum and the ‘open’ or ‘informal’.

The ‘formal’ or ‘closed’ curriculum contains the following elements:

- ‘closed’ content;
- content boundaries (specific subjects with no overlaps);
- strong classification (categories of content – technical, arts etc.);
- criteria, objective and outcome driven;
- evaluation against the prespecified outcomes or objectives is dominant.

In contrast, the ‘informal’ or ‘open’ curriculum may be characterized as follows:

- ‘open’ content;
- content boundaries loose (subject overlaps and relationships);
- loose classification (integrated and complex view of content);
- circumstance and need driven;
- evaluation uncertain but related to circumstance and need.

The type of learning embedded by the ‘formal’ or ‘closed’ curriculum is associated with high ‘teacher’ control of the knowledge and it socializes a sense of order and rationality. This type of curriculum is part of the ‘objectivist’s’ paradigm and therefore it creates in the minds of the recipients a dominant narrative of power in the hands of the knowledge holders and lack of power in the minds of the ‘learners’. It can also have its roots in the ‘past’, and to an extent the ‘present’. As the ‘formal’ curriculum is driven so strongly by assessment and evaluation it offers a greater opportunity for managerial control and direction. Indeed, the UK governments of recent times have been preoccupied with educational measurement or, as discussed earlier,

'technicism' in education. As a consequence of the above the 'closed' curriculum tends to socialize a narrative of low initiative, low innovation and creativity for the 'learner'.

In contrast, the 'open' curriculum places the 'learner' in control and consequently encourages challenge, questioning, high initiative, innovation and creativity. The 'open' curriculum socializes a sense of 'disorder' as the dominant narrative is more a part of the 'subjectivist's' paradigm. It has its roots in the 'past', the 'present' and the 'future'.

This is deeply significant and has implications for both organizations that take learning seriously and for educationalists in schools. We argue that the dominant narrative currently held in education is the 'objectivist' agenda and that this will not generate the innovation, flexibility and creativity needed for the knowledge economy. We also recognize that the 'subjectivist' agenda is higher risk, less certain and hard to evaluate (using objective means at least) but it does offer the opportunity of developing the kind of people who are so necessary in the turmoil of the knowledge economy.

We argue that most development in the workplace is of the formal, instructor-led or 'closed' (Bernstein, 1971) curriculum kind. We are all very familiar with this approach – it is regarded as normal in the workplace. Also, this is the approach advocated in many textbooks on the subject of training and development. The dominant narrative here suggests the need for strategic alignment of training and development.

These processes, we suggest, are becoming increasingly redundant in modern organizational contexts. Many managers observe that this type of development simply does not deliver the results expected of it (Broad and Newstom, 1992). The challenge here is for managers to recognize that the workplace itself is potentially a rich learning environment that can provide the necessary stimulus and support for learning and knowledge generation. Further, there is much evidence that this 'situated approach' (Lave and Wenger, 1991) offers a greater depth, understanding and participation in learning to be knowledge productive.

This is not to suggest that 'formal' or 'closed' education or training programmes are poor. In some situations they are particularly useful for knowledge and skill development. But the real issue is that if effective learning is inextricably linked to specific social contexts (as outlined in Chapter 1) and behaviours, the things people are taught in 'formal' or 'closed' programmes are not always relevant to the specific work settings. Perhaps more importantly the opportunities to even engage in a meaningful dialogue about application, development and transfer into the specific work setting may not occur within such programmes.

Another, more complex metaphor is that of a 'rich landscape' (Kessels, 1996) in which learning takes place. Kessels proposes the idea of a 'corporate

curriculum' as an inclusive framework of learning at work, in all its manifestations and, in particular, its social dynamic. According to Kessels (1996:173), the 'corporate curriculum' consists of seven elements or 'learning functions', as follows:

- 1 expertise related to the core competence;
- 2 problem solving;
- 3 reflection and generation of new knowledge;
- 4 communication;
- 5 self-knowledge, meta-cognitions;
- 6 peace and stability;
- 7 creative turmoil.

(There are close links here to the conditions for learning presented earlier in Chapter 1.)

The seven elements in the 'rich landscape' contain both 'formal' and 'closed' elements in which learning is holistic and relatively boundary free. In the 'rich landscape' learning occurs through an active engagement and participation that encourages creativity, lateral thinking and flexibility – the much-needed abilities of an employee of the future.

Case study 2.1, on the 'corporate curriculum', illustrates both the 'corporate curriculum' in action and the effect of a dominant 'rational' view of learning.

Case study 2.1

Company A, United Kingdom

Company A, working to the highest quality levels in Continental Europe, specializes in the design, development and manufacture of automotive components. It is part of a global network of companies. The parent organization, Company A Corporation, has 30 companies in 12 countries that together employ over 10,000 people.

Company A is highly successful. Its success has been built on the philosophy of continuous incremental improvement, just in time and total quality management systems. However, its future is not so certain. The industry is changing rapidly. There are technological, legal and environmental considerations ahead for Company A. The systems of the past may not be sufficient to help the business realize a secure future. The assumption is that the 'rich landscape' of learning offers the people in the business both a challenge and a real opportunity to progress and innovate towards securing a strong future.



The research team spent three months with the Manufacturing Department of the business. We used interview, focus group and questionnaire techniques to probe the nature and form of the 'corporate curriculum' in Company A.

The findings

Expertise related to the core competence

There is clear understanding of the 'formal curriculum' and little appreciation of an 'open curriculum'. All people have a good appreciation of the element 'expertise related to the core competencies' although there is evidence that this is under strain. Due to the pressures of 'lean' production they are beginning to develop a 'lean' approach to training and development.

Problem solving

Being a manufacturing site it is not surprising that there is clear evidence of problem-solving activities. The main, perhaps only, vehicle for this is Kaizen (see case study 4.1). This activity also seems under strain.

Reflection and generation of new knowledge

There seem few opportunities for reflection and the generation of new knowledge. The dominant approach to learning is based on people 'showing each other' how to do something rather than a combination of 'show and discuss'. People do not know how to conduct 'learning conversations'.

Communication

Despite the above point there are well-defined lines of formal communication that do not always work.

Self-regulation and meta-cognitions

This organization has tight control of its production methods. Training activities are strongly focused on the technical aspects of the job. Leanness in production has led to leanness in training. This results in a reluctance to give the time to training activities that are not 'technical' in nature. Opportunities to develop the more emotional side and motivation of individuals are absent. Consequently there is much tension among those interviewed and, in some cases, anger and frustration at the pace of work.

Peace and stability

The business is relatively stable (not peaceful) but this is also under strain. The strain manifests itself in an emerging 'blame culture', often driven by the demands of 'lean' production.

Creative turmoil

We were unable to find any sign of creative turmoil; only a climate of high pressure.

Comment

The pressure of competition, measured in Company A using cost efficiency, time control and product productivity, biases management towards technical development and training. Personal and interpersonal development is a low priority.

Company A's training and development programmes are mainly short term and just in time – purely outcome driven. These are generally evaluated through technical measures. Attributes of co-operation with others, learning about emotional interaction and adaptation are mainly ignored. These behavioural elements feature in the appraisal system as measures to be assessed but are not developed or exploited.

The central issue here is that teamwork is regarded as essential in Company A but the 'technicist' approach to learning mainly ignores the social context. Therefore the seven core conditions for a rich landscape of learning within teams become unbalanced. The consequence of this is employees' needs and perceptions tend to be neglected and the social context largely ignored. The organization's philosophy is at odds with its current practice.

Becoming knowledge productive

Old knowledge and practices have to give way to innovative ways of solving problems, improving efficiency and sustaining organizational development. The hypothesis at the core of the above points is that successful organizations of the future will be those that find the best ways to become knowledge productive (OECD, 1996; Seltzer and Bentley, 1999).

Knowledge-productive organizations are those that have the means to generate new ideas and ways of thinking which enable them to sustain competitiveness and continuously improve their products or services. Typically they are organizations in which there is a high level of HRD activity as reflected by a balanced corporate curriculum and high levels of team work-

1 ■ The big picture

ing. Additionally they are organizations that have a culture of creativity and support risk taking. A further necessary feature of such organizations is that they have well-developed means to monitor and evaluate their performance. (Huselid, 1995; Patterson *et al.*, 1998; Pfeffer, 1998)

Necessary as these characteristics are, they are still not sufficient to guarantee knowledge productivity, innovation and change. Two key elements that need to be brought into view to specify the range of sufficient conditions for knowledge productivity are the nature of an organization's commitment to learning from the past and the ways in which organizations evaluate the different futures open to them.

Recent work in the field of organizational histories (Gold *et al.*, 1998) has demonstrated that the process of undertaking a systematic analysis of the history and experience of individual work organizations – through methods of oral history and narrative analysis – can often be catalytic of change and innovation. In short, it is a process that enables people to learn from success and failure and build on what they know in ways that enable them to reframe what they know. Therefore, engaging in a facilitated dialogue about the organization influences and changes the behaviours of participants in that dialogue. The future itself cannot be known. But the process of exploring it reveals new perspectives on the present and opens up new options for development.

An organization will have many capabilities, but arguably the most important is strategic capability (Harrison, 2000). Strategic capability is related to profound knowledge of the environment and reflects the organization's ability to be strategically aware of change and opportunity. We suggest that strategic capability is strongly allied to knowledge productivity and that this in turn is influenced by the quality of learning within an organization. Figure 2.1 illustrates this relationship.

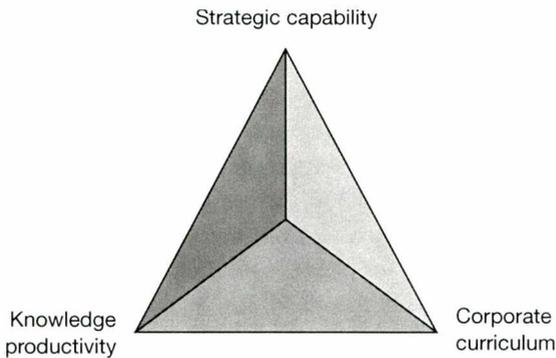


Figure 2.1 The relationship between strategic capability, knowledge productivity and the corporate curriculum

The quality of the corporate curriculum, as discussed in Chapter 1, influences an organization's ability to be knowledge productive and, in turn, the more knowledge productive the organization, the more strategically capable it becomes. The greater the strategic capability the more able an organization is to progress and survive in the dynamics of a fast-changing environment.

Case study 2.2, based on research work conducted by Garvey in 1999/2000, illustrates this point.

Case study 2.2

An investigation into the Corporate Curriculum at Oil Company Co.

In discussing the first element of the corporate curriculum – domain-specific knowledge – with a group of managers at Oil Company Co. it became clear that we had reached a pivotal moment.

I asked the question: 'What is the core domain knowledge of Oil Company Co.?' 'That's easy,' replied one of the managers in the group. 'It's all here' and he handed me a very large training manual. I flicked through the manual and it was full of training course details and outlines. In the main these were technical courses to do with the use and applications of lubricants in mechanical engineering, chemical engineering, production, refrigeration and the food industry. There were a few courses on presentation skills, negotiating skills and selling skills. There was silence as I thumbed through the manual. Then Andy, another manager in the group, broke the silence. 'Hang on a minute,' he said, 'I'm doing an MSc. course in Environmental Science, I think that could be domain-specific knowledge.'

'How do you mean?' the others asked.

'Well,' began Andy, 'I went to a factory by a canal recently and when I was shown around I noticed an oil slick on the water. The slick could only have come from the factory's storage tanks. I asked the Plant Manager if he had had a visit from the Environment Agency. The Plant Manager asked how I knew and I pointed to the oil. The Plant Manager then went on to say that the factory was due for closure if they couldn't solve the pollution problem. I said, Oil Company Co. can sort it for you – with our storage system. The Plant Manager was delighted and we got a new customer!'

'What are you saying?' asked one of the group. 'That we all have to do an MSc. in Environmental Science?'

'No,' said Andy. 'It means a lot of things – if I hadn't been doing the course I wouldn't have noticed or recognized the problem and opportunity, my specific knowledge became a commercial asset but I had to be alert to apply it. We don't need everyone doing the course but we do need people learning

other things, being aware of how to exploit and apply the knowledge. We also need to know who knows what and where and how they have applied it so that we can learn from each other.'

Comments on the case

Learning on a formal education programme had enhanced Andy's capability but he had to have the ability to realize this and apply it in order to fulfil the requirements of Oil Company Co.'s strategy. As he said himself, he had to be alert. Andy spotted the 'moment' and his past experience informed his present so that a new commercial future could unfold. So, where does alertness, for example, come from? It is part of our holistic capability as people and not something that can necessarily be learned on a course. Andy is motivated, committed and enthusiastic about his work. Oil Company Co. recognized this, nurtured it and provided an environment where he could be himself at work. Of course there are the pressures of sales targets on Andy and his colleagues, but the management system in Oil Company Co. rewards financially both 'target' performance and development activity. It is sensible to do so, as Andy is developing a niche as an 'expert' for himself and Oil Company Co. is benefiting from it. He is being knowledge productive as a result of a combination of an aspect of Oil Company Co.'s corporate curriculum and his own personal capabilities, developed in an environment that is encouraging and rewarding.

One challenge for both Oil Company Co. and Andy is to continue learning, applying and being alert. Another is to make sure that others know about this type of success and, as discussed in Chapter 1, translate the learning into other areas of work.

Summary and conclusion

This section has covered two main elements of the 'big picture'. In Chapter 1 we explored the nature of the knowledge economy and the changing managerial climate within it.

In Chapter 2 we have offered a backdrop of social science theory that will act as a reference point throughout the book. We have also raised the issue of our pasts, our presents and our futures as further reference points for decision making in organizations. We have introduced the concepts of the corporate curriculum, knowledge productivity and strategic capability.

Part 1 has explored the role of governments within a knowledge economy and the notion that learning is essentially a social activity and as such has various moral implications.

The knowledge economy is influenced by a complex web of competing concepts. Each organization needs to find its way through the complexity in the knowledge that there is no arrival, only the journey.

Critique of Part 1

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You cannot be smart against your will

Knowledge productivity

An important assertion in Chapters 1 and 2 is that the economy is transforming into a knowledge economy. Therefore individuals, teams and companies need to develop the necessary competencies to be able to participate in a working life that is mainly based on knowledge productivity. The dramatically increased interest in knowledge over the past decade has given rise to the concepts knowledge-intensive organizations, knowledge workers, knowledge systems, knowledge centres, knowledge creation, knowledge management and citizens in a knowledge society. At the same time it is questionable whether the traditional approaches to management, training and development will provide the learning environment that is required for knowledge work.

When I first developed the concept of knowledge productivity (Kessels, 1995) I stated that knowledge productivity involves signalling, absorbing and processing of relevant information, developing new competencies on the basis of this information, and applying these competencies to the improvement and innovation of work processes, products and services. It chiefly concerns the way that teams of people achieve knowledge-based improvements and innovations. In fact, the driving force of knowledge productivity is a complex learning experience. It also expresses that the knowledge we value in an economic context should be perceived as competencies, as capabilities, as the skills to bring about gradual improvement and radical innovation. The knowledge-productivity concept is based on the view that knowledge is an individual competence: it involves a subjective skill that is inextricably linked with the individuals concerned. We first explored the

concept of knowledge as a competence in studies of successful educational programmes (Kessels, 1993, Kessel and Harrison, 1998; Kessels and Plomp, 1999). Malhotra supports the view of knowledge as a competence:

Even procedural knowledge, when translated into symbols that are later processed by another human, does not ensure that the outcome of his knowledge will rival that of the original *carrier*. Knowledge needs to be understood as the *potential for action* that doesn't only depend upon the stored information but also on the individual interacting with it. (Malholtra, 2000: 249)

Therefore companies, government agencies and institutions should consciously develop a corporate curriculum, an 'open' plan for learning that offers a rich landscape of development, that turns the day-to-day work environment into a powerful learning environment. The corporate curriculum's various learning functions help individuals, irrespective of their formal education, to develop their talents and take part in various forms of knowledge work. As knowledge productivity and the supporting learning processes are so closely related, the corporate curriculum has the potential to become the binding force of knowledge networks. These may be characterized as 'smart' communities that heavily depend on shared intrinsic motivation and personal affection as part of the key content of the job.

The management of knowledge

The concepts of knowledge productivity and the corporate curriculum also raise the question as to how far knowledge productivity can be managed. The current interest in knowledge, its complex underlying dynamics and the economic significance that we may attribute to it may imply that we may be seeing the end of the management era altogether.

The origins of management lie in a period of economic activity in which we tried to plan, steer, manage, measure, verify, monitor, assess and evaluate everything we considered important. While knowledge has been important throughout economic history, our desire to manage everything of value to us arose mainly in the previous century. Drucker (1993) argues that the initial application of knowledge to production means and methods gave rise to the industrial revolution. The owners of the means of production were the main players; access to the capital factor ruled economic transactions. Subsequently, the application of knowledge to labour brought about the revolution in productivity. Here, a new category of managers emerged. They cultivated specific knowledge concerning the deployment of production means, use of resources, employee guidance and management of quality and logistics and external markets, clients and the surroundings. Over time, the dominant position of the owner-capital provider shifted to the upper management.

In the current knowledge revolution knowledge is applied increasingly to knowledge itself. The capacity to develop and apply knowledge rests mainly with knowledge workers. These generally highly educated professionals are beginning to prevail over managers. The transition from the productivity revolution to a knowledge revolution might therefore mark the end of the management era.

The ability to develop strategies, procedures and work processes turned top management into the ruling business class of the twentieth century through the power that they inherited from the company owners. In exchange for a salary, security and material support, employees did their jobs in a disciplined and obedient way. In the twenty-first century knowledge productivity is becoming the driving force, and as this knowledge production will be found at every level of economic activity the power then starts to reside with knowledge workers.

The changing role of managers will have specific implications for what is known nowadays as 'knowledge management'. The question is whether the successful management approach from the past is fully applicable to promote knowledge development.

Our desire to manage everything of value to use arose mainly in the previous century. In the line of production management, finance management, personnel management and account management it not surprising that, when knowledge becomes of prime importance, we head for knowledge management.

However, I expect that in a while we will view knowledge management as an anachronism, as the link between two units from different eras. I am not alone in my criticism of knowledge management. In their recent publication Von Krogh *et al.* (2000) are similarly reticent about knowledge management and prefer to promote knowledge development without the 'management' imperative.

Malholtra (2000) deals extensively with the question of whether knowledge management is an oxymoron, a combination of two opposite concepts. He concludes that the management perspective is ineffective with knowledge development. Nonetheless he has high hopes for the self-steering 'knowledge intrapreneur', although this insight does not lead him to abandon the knowledge-management concept.

Knowledge management, control and steering relates more to the 'formal' curriculum, as knowledge productivity encourages the innovation and creativity of an 'open' plan of learning. It will be extremely difficult to organize learning in an open way, especially in a highly competitive environment where predefined outcomes and targeted performances are valued. Therefore strategic capability (as described by Harrison, 2000), knowledge productivity and the quality of the corporate curriculum are less directed towards specific

improvements and innovations, as these are not the knowledge that concerns us. The ability to achieve such improvement and innovations matters most. As specific innovation, improvement or invention – possibly patented – may be of great economic value, but the true value lies in the *ability* to generate such improvements and innovations rather than in the actual innovation.

Self-regulation of motivation, affinity, emotions and affections

One of the learning functions in the corporate curriculum supports self-regulation of motivation, affinities, emotions and affections. Nobody can talk somebody else into curiosity, motivation, interest and ambition. The assumption is that people are only clever if they want to be. You cannot be smart against your will. In a traditional economy a manager could say: 'Joseph, work harder, or run faster.' In a knowledge economy it is useless when a manager says: 'Joseph, be smarter or show more creativity!' Being smart and creative depends heavily on personal interest. Affections, affinities and emotions play an important role in knowledge work. I cannot be inventive in a domain for which I am not motivated. I have to ask 'What is meaningful work for me and how do I become committed?' Finding out what emotional and affective drives employees have and how they can regulate these will probably be an important aspect of designing a work environment in a knowledge economy.

Therefore it is important for knowledge workers to identify personal themes and ways to develop them. In view of the earlier statements that knowledge is a personal skill, which can thrive in inspiring knowledge networks and communities of practice (Wenger, 1998; Wenger and Snyder, 2000), we might search for different strategies to develop knowledge productivity.

The core conditions as formulated 40 years ago by Rogers (as cited in Chapter 2) such as self-organization, creativity and open dialogue, individual responsibility, control and authority, extensive and open information exchange, a climate of trust based on mutual respect and genuineness, unconditional positive regard for other people, and an ability to communicate all these to others, have now gained an explicit economic interest.

Promoting knowledge productivity requires the competence to work systematically on the social context as well as on the subject matter component. Previously this was the chief responsibility of instructors, trainers and managers. Over time these roles will have to become those of mentors, coaches, facilitators and inspirers. The desire to guide, manage, control and monitor is becoming increasingly difficult to fulfil. Many curric-

ula, schedules and instructional strategies cannot avert transfer problems. Many knowledge workers do not need their managers and arrange for support independently. The growing interest in self-guidance is apparent in both work and learning contexts. This leads us to ask how we can tempt each other towards knowledge productivity.

The main objective is to acquire the competence to design a workplace that develops sustainable instruments useful for dealing with future issues: the competence to become cleverer, learning to learn, organizing reflection, increasing reflexivity and basically applying knowledge to knowledge development.

Reciprocal attractiveness and passion

Employees are becoming increasingly aware that their economic appeal depends primarily on the power of knowledge productivity. They will see the need to tempt each other and the surroundings they select to cultivate these competencies. This temptation does not result from power, coercion, status or position. Instead it arises from the perceived need to work, design and learn together. This process is not automatic. Tempting for knowledge productivity is inviting rather than imposing. Such competence encourages reciprocal attractiveness and makes judicious use of the the energy contained in everybody's passion.

The moral dimension, as discussed in Chapter 1, sheds new light on the concept of reciprocal attractiveness in a context of knowledge work. It does not only apply to the individual members of self-organized teams, but also to managers and to the firm as a whole. In a knowledge economy values such as loyalty, commitment and trust cannot be bought by paying a salary. It is even questionable whether these values contribute to knowledge productivity. Loyalty and obedience may be welcome and valuable support systems for overcoming a hurdle or an impasse. Without any substantive drive, however, they are likely merely to foster stupidity and at best lead to mediocrity. To develop this substantive drive it is important to explore the relation of individual life themes to meaningful work. Reflective skills are probably crucial in this process as they help to understand what matters in the personal development of a professional. Co-operation and joined knowledge work is feasible when participants each choose their community based on reciprocal attractiveness, passion, involvement and identification with each other's expertise.

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