part one

The Emerging Knowledge Economy

chapter one

Setting the Scene

INTRODUCTION

Two core propositions underpin this book: that in a knowledge economy the competitive advantage of organisations relies on capability to adapt to the changing environment by the continuous generation and application of new knowledge; and that the human resource development (HRD) process is key to ensuring that capability.

Our principle purpose in writing this book is to explore HRD and 'knowledge productivity' as an interactive process that can enhance the ability of organisations to make progress in a knowledge economy. Through an evaluative but essentially future-oriented text we hope to stimulate reflection on HRD's past and current organisational role and its future potential. We also seek to involve readers in the analysis of HRD's place in an increasingly knowledge-based environment, encouraging creative responses to the challenging organisational scenarios presented in the book.

In this chapter we explain our rationale for focusing the book on HRD in a knowledge economy, and identify key issues that underpin the book's structure and themes. We set the scene for subsequent chapters by reflecting on the nature and causes of the emerging knowledge economy and on macro-level issues that provide the framework for HRD as an organisational process. We conclude by examining some of the needs and challenges facing that process.

THE BOOK: RATIONALE, SCOPE AND STRUCTURE

Rationale

The framework for this book is the rapidly emerging knowledge economy. So the first question we must answer is: what is meant by a knowledge economy?

In traditional economies, added value is achieved by maximising the interactive potential of capital, labour and material. However, in a knowledge economy the critical added value is gained from the continuous application of knowledge to the enhancement and innovation of work processes, products and services. As performance differentials and competitive advantage become determined more by intellec-

tual than by physical resources, traditional tangible physical assets become less important than intangible knowledge-based assets. In other words, a knowledge economy is emerging.

The next question we need to respond to is: why should the book focus on HRD? The emergence of a knowledge economy is one of the most dramatic shifts to have taken place in society since the industrial revolution of the late 19th century. With the impact of the World Wide Web and the increasing globalisation of business and communications that the Web has made possible, that economy is fast becoming a dominating force in relation to national economic and social policies and to work organisations. Some of the fundamental changes are taking place at organisational level. These, coupled with changing patterns of employment, are having a dramatic impact on HR policies within organisations. It is therefore an important task of academics to focus on the HR arena. Within it, however, we believe that it is the HRD domain that currently calls for special attention.

Much has been written on the relationship between HR strategy and business policy in changing organisations (see for example Schuler and Jackson, 1999; Brewster et al., 2002; Pettigrew et al., 2002). When we first began to plan this book nearly three years ago the strategy literature already contained a distinctive strand on organisational learning and knowledge management. Subsequently that strand has become a field in its own right yet there is surprisingly little on HRD as a key process for organisations operating in a knowledge economy. One major United Kingdom (UK) report (Stewart and Tansley, 2002) has reviewed new roles and tasks for trainers in such an economy, and a European research project has examined HRD strategies and practice in nearly 200 'learning oriented' organisations across Europe (Tjepkema et al., 2002). However, much of the United States' (US) and European literature on HRD is in reality primarily about training, and HRD comprises far more than that.

In a rapidly evolving environment where knowledge is the main organisational currency, firms must be able to learn fast, adapt regularly to new challenges, ensure that their workers can construct and share strategically valuable knowledge as well as acquire technical and interactive skills, and continuously improve and innovate. In other words, such organisations must be 'knowledge-productive'. The reason why we have chosen to focus on HRD in this book is because we believe that the HRD process has extraordinary potential here, albeit a potential that is often ignored, underplayed or misunderstood. A knowledge economy needs HRD professionals whose attitudes and competencies are very different from those they are expected to exercise in more traditional contexts. Many of those professionals will want and need to be educated and developed in new ways.

Our rationale for the book explains the three features that we hope give it both uniqueness and currency:

1. First, the book reflects our belief that there is now an urgent need to assess from both theoretical and practical viewpoints the contribution that organisationally based HRD can make to a knowledge economy, and to explore its underlying research base in that connection. What do we mean by 'HRD' in this sense? We explain in Chapter 5 that the term has many interpretations. However in our view:

   > HRD as an organisational process comprises the skilful planning and facilitation of a variety of formal and informal learning and knowledge processes and experiences, primarily but not exclusively in the workplace, in order that

organisational progress and individual potential can be enhanced through the competence, adaptability, collaboration and knowledge-creating activity of all who work for the organisation.

Our definition infers that if the HRD process is to add value in a knowledge economy, then there is a need for a fundamental shift from a preoccupation with immediate performance improvement to a greater focus on lifelong learning and work-based learning strategies.

2. Second, the book is concerned primarily with HRD's contribution to the production, dissemination and application of knowledge that has a strategic value for the organisation. It therefore explores ways in which the HRD process might be able to enhance knowledge productivity. That concept was first developed by Kessels and refers to an organisation's ability to generate, disseminate and apply knowledge to products, processes and services (Kessels, 1995, 1996; Garvey and Williamson, 2002).
3. Third, through the original conceptual framework of the 'Corporate Curriculum' (Kessels, 1996, 2001) the book explores ways in which to ensure the collaborative stimulation and facilitation of learning and developmental processes, initiatives and relationships, and to do so while respecting and building on human diversity in the workplace. In a knowledge economy organisations rely especially on tacit knowledge – that is to say, on knowledge that is embedded deep in the individual or collective subconscious, expressing itself in habitual or intuitive ways of doing things that are exercised without conscious thought or effort (Nonaka, 1991). Tacit knowledge is the property of individuals and cannot be wrested from them. They must agree to put it at the service of the collective whole. The learning that either produces or springs from tacit knowledge must therefore rest upon a recognition of mutuality of interest and of responsibility between organisation and individuals.

Scope

In writing this book we have drawn mainly on literature from the UK, the US and Continental Europe. There are several reasons for this:

- The knowledge economy is emerging with its fullest force primarily in the West, which at present is where it is having the greatest impact on business strategies, processes and practice and where, as a phenomenon, it is under the most lively debate (see, for example, Swanson and Holton, 2001; Garvey and Williamson, 2002; McGoldrick et al., 2002; Tjepkema et al., 2002a;).
- In organisations operating at international and global levels – that is, in organisations most affected by the emerging knowledge economy – the main template currently in use for human resource strategies and practice is generally Western, albeit with a considerable interest still in Japanese practice.
- The book's primary focus is on organisationally based HRD and some of the most significant research current at the time of writing (Tjepkema et al., 2002) has indicated that there are more similarities than differences between HRD practice in Europe, Japan and the US. The only major exception to this appears to be in relation to HRD professional roles, where practice in Japan has always differed significantly from that in other countries (we discuss Japanese practice in Chapter 4).

Structure

The book is divided into three parts. In Part I we explore the business and human resource agenda facing organisations that operate in the emerging knowledge economy. In Part II we move into those organisations to examine theoretical and practical approaches to the construction, sharing and utilisation of knowledge that can drive and sustain progress. In this part of the book we suggest how rich knowledge-productive work environments can be developed, paying special attention here to the role of new information and communication technology and drawing on some of the most recent empirical research into knowledge productivity. In Part III we discuss ethical issues related to strategies for learning and development in organisations operating in a knowledge economy. In our final chapter we summarise the main themes that have emerged through the book in order to identify the challenges and opportunities facing the HRD function and its practitioners in that economy.

THE BOOK: THEMES

Part I: The emerging knowledge economy

The backdrop to the six chapters that comprise Part I is the changing business and employment environment and competitive landscape of the firm. Before looking specifically at themes covered in this part, we need to review briefly the nature of that backcloth.

Interest in the internal forces that can bestow competitive advantage is a natural response to the changes that have transformed the competitive landscape since the 1970s. Throughout the 1980s there were significant movements in market share among various manufacturers, and an increase in financially driven business strategies. During the 1990s there was rapid and discontinuous economic and political change in the international environment as the Cold War ended. New commercial opportunities emerged as Eastern Europe opened up, the European Union grew in stature and the hitherto seemingly impregnable Japanese economy moved into recession. This was an era of corporate networks, multinational alliances, corporate ventures and continuing restructuring (Bowman et al., 2002: 33–4).

Throughout the same period technological convergence, changing stakeholder demands and shorter product life cycles were altering the shape of the competitive landscape (Ghoshal and Bartlett, 1994: 109). To respond to these, more sophisticated management tools and concepts were being developed in the form of information systems, quality deployment processes, team-based organisations and multi-skilled workforces. By 1993 Peter Drucker was noting the advent of a 'transformational' knowledge economy. In the rapidly growing service sector, for example, the declining role of physical labour, rapidly developing processes of collaborative engineering and new information and communications technology were already attesting to the superior value of applied knowledge over traditional economic factors. Collectively, these changes made 'a profound impact on the organizational structures and processes of companies and, more specifically, on the roles of individuals and in their relationships with their organizations' (Ghoshal and Bartlett, 1994: 110). However, it was the 'dizzying pace' of technological change that held some of the greatest strategic implications (Bettis and Hitt, 1995). This pace has continued, with consequences including an 'information-rich, computation-rich, and communications-rich organizational environment' (ibid), a heightened level of knowledge intensity, and globalisation.

The word 'globalisation' has become a kind of mantra. But what does it mean? It can refer to the geographical spread of an organisation, to the degree of transnationality of its assets, sales and employment, to the production of 'global' products, and to the global integration of processes (Brewster et al., 2002: 7). Crucially, however, it is a process directly linked with the Internet and the pricing and information revolution that it has made possible. Through the World Wide Web anyone can gain access to prices across the world and carry out his or her own comparative analysis. Buyers and sellers can come together naturally, speedily and continuously, with the consumer being the ultimate victor, as the case of auto companies demonstrates (see Case example 1.1).

Prahalad and Ramaswamy clarify the ways in which the 'consumer-centric culture of the Internet, with its emphasis on interactivity, speed, individuality and openness' has given the consumer a hitherto unimaginable influence on value creation:

> Today's companies know just how dramatically 40 million consumers networking with each other and challenging the status quo online, in categories as different as music and mortgages, are shaking up the business world. (Prahalad and Ramaswamy, 2002: 52)

They argue that companies that do not quickly learn to co-create value with their customers and capture the intelligence that illuminates what those customers value will soon lose competitive advantage. They identify (ibid: 56–7) five powers that the Web has given to 'connected customers'. These are to do with:

- *Information access* – enabling consumers to develop the knowledge to make informed decisions

Case example 1.1

The changing face of car manufacturing and purchase

With the advent of the Internet, consumers can now rapidly identify dealers across the world who have the best offers on their preferred models. The manufacturers have taught consumers that patience will bring big rewards, so increasingly they are biding their time either until the bargains they want come through, or until the car companies capitulate. The car companies lose, as their profit margin diminishes: it is now the consumer who has become king (Stelzer, 2002). The same story holds true across two other key industries: airlines and retail clothing: there too the basic structure is changing in response to consumer attitude to price: an insistence on low cost plus high value for money (ibid). Low cost is in its turn facilitated by the manufacturing of goods to the most complex specification now increasingly being able to be carried out wherever is cheapest because of the ability to transmit through the Internet vast amounts of information virtually free (Collins, 2002).

This combination of easily accessible pricing data for buyers and increasing use by manufacturers of lowest-cost producers means that unprecedented economies of scale are now possible for companies with the biggest buying power. Manufacturers who cannot expand face closure. Producers get less than formerly, but they gain through much reduced advertising costs and an assured demand for their output. 'This, in a nutshell, is globalisation' (Collins, 2002).

- *Global view* – as described in the car trade case (Case example 1.1)
- *Networking* – enabling customers to form 'communities of interest … without geographic constraints and with few social barriers'
- *Experimentation* – the Web allows consumers to compare experiences, and to experiment with and develop products, especially digital ones
- *Activism* – all of the above give consumers increased confidence to 'speak out' and make clear the kind of value they expect.

This 'quiet revolution' has been 'fomented by a shift in how value is perceived and created' and by the way in which innovation and flexibility rather than efficiency have become the main drives of value (ibid: 61). It signals a need for major changes to traditional concepts of strategy and structure. We explore such changes in Chapters 2 and 3.

Organisations operating in a knowledge economy must develop strategy processes that ensure old ways of thinking and doing do not dominate, locking in customary ways of thinking, inhibiting innovation and preventing progress (Bettis and Hitt, 1995). This has direct implications for HR strategising. When tacit knowledge and human interactions are central to the construction and effective application of new knowledge, and traditional patterns of employment combine with other forces to place unique pressures on organisations' human resources, there is a need for new HR approaches in organisations. In Chapter 2 we look at the issues here.

A related theme that emerges in Chapter 2 concerns the future of the management role. Managers are still crucial to the success of implementing and maintaining strategic and structural change in organisations, but in a knowledge economy they are seeing radical changes in their roles at every organisational level. Their rate of job loss continues to be high as their roles are pressured from above and squeezed out or into new shapes from below, where many work teams are being reorganised to operate on a self-managing basis under tight performance control (Sparrow, 1999). They are intimately affected by the need to co-create value with customers and the changes in organisational strategies and design that this need is producing (Prahalad and Ramaswamy, 2002).

In Chapter 3 ('Organising') we discuss the impact of both the new competitive landscape and the knowledge economy on organisational design. Firms now need to be flexible in two major ways: in producing new strategic responses as old recipes become obsolete, and in rapidly, often almost continuously, redeploying and co-ordinating the resources needed to implement those responses (Sanchez, 1995). In a traditional economy organisations have focused on strategy and structure as products of formal planning. In a knowledge economy the rapid pace of change and its increasingly discontinuous nature create a need for a new focus: on strategising and structuring as dynamic processes. We discuss in Chapter 3 the need to find new organisational forms and to continuously adapt those forms to new contingencies.

Researchers such as Eisenhardt and Santos (2002) argue that in an emerging knowledge economy firms need to generate dynamic capabilities that rely on combining internal competencies with the know-how of external entities. In Chapter 3 we also discuss some of the ways in which the organisation can achieve what Venkatraman and Subramaniam (2002) refer to as 'economies of expertise' through leveraging intellectual capital and knowledge flows in a complex network of internal and external relationships.

Reflection

- What is the predominant view on 'knowledge' in your own organisation (or one with which you are familiar)?
- What are some of the ways in which this view is typically expressed in practical roles, tasks or activities in your own workplace?

Across Western countries and others more widely, notably Singapore and Japan, the focus and shape of HRD in organisations is being influenced by national policies on vocational education and training (VET), and by national initiatives related to lifelong learning. We explore a number of country VET systems in Chapter 4 ('HRD: Country Frameworks') in order to gain a better understanding of the economic, cultural and societal pressures that help to explain the focus and coverage of HRD at micro levels. A major issue discussed in that chapter is the increasing convergence in external challenges facing organisationally based HRD, yet the great disparity in national policies and systems aimed at ensuring firms respond effectively to those challenges.

In Chapters 5 and 6 HRD as an organisational process comes centre stage. In Chapter 5 ('HRD: Emerging Challenges') we explore findings from research since the early 1990s into HRD across Europe and more widely in order to identify the key challenges that it now faces. In Chapter 6 ('HRD: The State of Play') we examine how the HRD function and its practitioners seem to be coping with those challenges. Although some of the messages emerging from recent research are ambiguous, there is a generalised consistency in findings. We are forced to conclude that HRD has a considerable way to go before it becomes a credible business function in organisations currently, let alone in any new and even more challenging scenarios.

Part II: Building knowledge-productive organisations

Having focused in Part I of the book primarily on the changing world of work, learning and development in an increasingly turbulent business environment, we move into the workplace in Part II in order to explore issues related to the development of organisational capability to continuously improve and to innovate – in other words, to become knowledge-productive.

In organisations operating in traditional economies, knowledge has tended to be regarded as an objective entity, codifiable and often protected by patents. In Chapter 7 ('Notions of knowledge') we trace some of the ways in which, from the start of the 20th century and throughout most of its duration, this notion of knowledge as a resource to which the organisation has proprietary rights influenced corporate policy-making, the managerial role and HRD activity.

By the turn of the 20th century, the changes discussed in Part I of the book were drawing increasing attention to the tacit dimension of knowledge, and to the importance of 'knowing' as a social process. However, in their literature review, Eisenhardt and Santos (2002) found that in most organisational research 'knowledge' was still at that time being treated relatively simplistically as a resource. Drawing on arguments proposed in this book's earlier chapters, we contend in Chapter 7 that the source of competitive advantage in dynamic knowledge-based environments cannot be knowledge as organisational commodity alone, since the value of all commodities is eroded by obsolescence, imitation and poaching. We argue for a paradigm where the organisation is viewed as a system of learning and knowing processes and activity, situated

in workplace communities of practice. The concepts underpinning the paradigm are not new (Vygotsky, 1978; Lave and Wenger, 1991; Sternberg, 1994). However, where once they were mainly debated in the educational and social theory domains, now they are gaining prominence in the literature and practice of business strategy and HRD (Wenger and Snyder, 2000).

We explain in Chapter 8 ('The Knowledge-Productive Organisation') that this paradigm has profound implications for organisational leaders and managers, for human resource professionals, and indeed for all who work in and for the organisation. Learning processes in the workplace constitute a major vehicle for knowledge creation. In practice, however, it can be extremely difficult to organise a work environment in such a way that learning plays a prominent role in day to day activities. The reason is less a lack of inspiring examples, more that it can be hard to recognise those examples for what they are. Too often our perceptions are conditioned by a traditional educational paradigm where working and learning are treated as two separate states. Too often, also, the focus of educational systems is the control of chosen individuals' performance and development rather than the development in all potential learners of talent, inspiration, co-operation and trust.

These and other problematic issues are the focus of discussion in Chapter 8 and also in Chapter 9 ('Researching Knowledge Productivity'). Like other commentators in this evolving field, we have no prescriptions to offer. Instead we see value in suggesting some new constructs for building and maintaining a knowledge-productive organisation, and in critically appraising the research base of those constructs. In doing so we draw on emerging as well as on historical research studies, in order not only to identify 'evidence' but also to explore the experimental. In a field that has emerged so rapidly and that is subject to discontinuous change, no historical precedents are reliable. One message of these chapters is that all researchers and practitioners in the knowledge productivity field have to learn how to speculate and innovate as well as to replicate and validate.

In a knowledge economy managers and HR practitioners need to know how to apply new information processes and systems to their own areas of work, and how to contribute to the development of an effective interaction between structure, technology and knowledge productivity when new strategies are to be introduced. In Chapter 10 ('New technology, the knowledge process and HRD') we argue that at present such knowledge is often lacking. Drawing on research studies from across Europe, we describe developments in information and communication technology that have direct implications for learning and knowledge construction in the organisation. We explore aids and barriers to the harnessing of such technology to learning and development in the workplace, and identify areas where HRD practitioners appear to need new strategies and expertise.

Reflection

- As adaptation, improvement and innovation become critical characteristics of organisations in a knowledge economy, how do you think this might be reflected in the day to day workplace?
- Why do you think many organisations are slow to take up the opportunities offered by new information and communication technology to enhance training and learning in the workplace?

Part III: HRD: Challenges in a knowledge economy

In Part III we integrate and discuss the main issues that have emerged from earlier chapters and explore their major implications for the HRD process and its practitioners. However, we first examine one major area often ignored or underplayed in HRD texts: ethics.

In earlier parts of the book we refer from time to time to ethical issues associated with the operation of the HRD process in a knowledge economy. These form the focus of our discussion in Chapter 11 ('The ethical dimension'). Some writers argue that the treatment of organisational learning and knowledge in the literature tends to be normative, ignoring critical issues of power and ethics. They claim that even in the so-called post-Fordist workplace discussed in Chapters 7 and 8 ('Notions of knowledge' and 'The knowledge-productive organisation') workplace learning has a 'potentially repressive power' where 'the management of training means differences are rendered invisible as learners' experiences are constructed/structured to fit a centrally controlled norm' (Solomon, 1999: 124). Such a claim raises important questions. In a globalising business environment, approaches to workplace learning need to respect and build on diversity in order both to respect ethical principles and to aid knowledge productivity at individual, team and collective levels of the organisation.

In Chapter 12 ('Where to now for HRD?') we identify key issues that have surfaced throughout the book and explore implications for HRD strategies and practice in organisations. We also gaze into HRD's crystal ball and speculate on likely future challenges, opportunities and directions for the process and its practitioners. Our conclusions point to a concept of HRD and the tasks it involves in knowledge-based organisations that differs significantly from that prevailing in more traditional contexts. This view has a particular resonance for the education and career development of HRD professionals. It presents those professionals as no mere training technicians or learning providers, but as strategic players who need a repertoire of broad-based and high-level expertise. That expertise ranges from the ability to deal with social and cultural factors of learning in communities to being an effective partner in the development and implementation of strategies at business unit and corporate levels, where integrated thinking on adaptation to the environment, building networks, innovation and learning is essential.

AN ECONOMIC BASE FOR KNOWLEDGE, LEARNING AND DEVELOPMENT

The macro-level context

At the start of this chapter we referred to Drucker's (1993) notion of a transformational knowledge economy. Many writers have subsequently commented on such an economy, using a variety of synonymous terms including:

The Information Society (Giddens, 1994)
The Learning Society (European Commission, 1996)
The Network Society (Castells, 1998)
The Learning Economy (Field, 2000; Lundvall, 2000)

Concepts of learning and collaboration are key to such definitions. Sustained competitive advantage depends on the rapid generation and application of 'dynamic capabilities', defined as the firm's ability to integrate, build and reconfigure uniquely valuable

competencies. Organisations must learn quickly, drawing on information from many sources, in order to be able to repeatedly alter their resource configuration in response to market change (Eisenhardt and Santos, 2002).

At macro level, the relationship between education and economic prosperity has always been of great importance for governments and industry. One of the main tasks of publicly funded education is to invest in the development of a high-level workforce. Such expenditure is considered as a necessary investment in human capital (Becker, 1993). In studies carried out by Bassanini and Scarpetta (2001), the coefficients on human capital suggested relatively high returns to education. They calculated that one extra year of average education (corresponding to a rise in human capital by about 10%) would lead to an average increase in steady-state output per capita of around 4–7%.

A European Community (EC) advisory committee for vocational training and an education committee meet regularly with union and employer bodies to discuss training as part of the 'social dialogue' – a process involving the social partners in training policy in order to encourage employers to contribute to long-term profitability and economic performance rather than training only for immediate needs. This dialogue enables stakeholder interests, in the shape of organisations representing employers and unions, to agree on policy that is informed by practical knowledge and expertise, and increases the likelihood of successful implementation. Together, the Community's social partners have produced a series of joint opinions endorsing the importance of education and training within the Single European Market. As we explain in Chapter 4, most member states (apart from the UK) mirror this Community-level approach by having some form of regulation of the vocational educational system, and by incorporating employer and trade union interests into the policy-making process.

Across the Community the need to invest heavily in human capital has for over a decade expressed itself in a drive for lifelong learning. Adopted by UNESCO as its mission in the 1970s, the vision of lifelong learning was espoused by the EC in the early 1990s. The global initiatives that followed included the *World Initiative on Lifelong Learning* and the *European Lifelong Learning Initiative* (Homan and Shaw, 2000: 1). In 1995 the European Commission presented the White Paper *Teaching and Learning. Towards the Learning Society* (EU, 1996). It highlighted five objectives:

1. Encouraging general knowledge development
2. Strengthening the ties between regular education and companies and institutions
3. Preventing social exclusion
4. Promoting and managing several languages
5. Promoting continuing education.

Reflecting these objectives, 1996 was designated the European Year of Lifelong Learning. The Organization for Economic Co-operation and Development (OECD) supported a similar policy in its reports *Lifelong Learning for All* (1996), *Literacy Skills for the Knowledge Society* (1997) and *Knowledge Management in the Learning Society* (2000). In 2001 two OECD publications, *The Well-being of Nations: The Role of Human and Social Capital* (2001) and *The New Economy: Beyond the Hype: The OECD Growth Project* (2001a), contained a strong plea for major investment in education, training and lifelong learning to enhance economic growth. Key policy recommendations in the latter publication include those shown in Table 1.1.

Table 1.1 *OECD policy recommendations for lifelong learning*

- *Invest in high-quality early education and childcare:* These investments are more cost-effective than later interventions to remedy school failure and they help boost participation in the labour market.
- *Raise completion of basic and vocational education and improve the quality of the system:* Dropout rates from secondary education have to be lowered. ICT literacy has become part of basic competencies and has to be improved, notably by recruiting qualified teachers and making pay more competitive.
- *Improve school-to-work transition:* Create or strengthen pathways that combine education with workplace experience; to ensure cost-effectiveness of the system, establish mechanisms of co-financing between employers, trainees and government.
- *Strengthen the links between higher education and the labour market:* This can be achieved through developing shorter course cycles with a healthy orientation to job market requirements. Involving firms in the definition of curricula and funding can be valuable, as can strengthening performance-based financial incentives.
- *Provide wider training opportunities:* Increase possibilities for adults and workers to participate in higher education. Innovative instruments, such as individual learning accounts and systems of recognition of competencies, can enhance incentives to engage in training while helping to control costs. Ensure that firm training is not penalised by tax systems.
- *Reduce obstacles to workplace changes and give workers greater voice:* Employee involvement and effective labour–management relationships and practices are key to fostering change and raising productivity – governments must allow this to develop. Ensure that working time legislation and employment regulations do not hamper efficient organisational change; adapt collective bargaining institutions to the new economic environment.

Source: Adapted from *The New Economy: Beyond the Hype: The OECD Growth Project,* p. 70. OECD copyright, 2001a

In an attempt to provide the vision of lifelong learning with a sound educational base, the EC is working to improve the level of basic education in certain states, to spread scarce skills more efficiently across the Community and to increase the stock of those skills. It is widely accepted in EC countries that the mobility of labour that is crucial to an efficient labour market relies heavily on common vocational standards and transferability of qualifications. To that end, in June 1999, 29 countries signed the Bologna Declaration, whereby all qualification standards and structures are to be linked by 2009 into an overarching European qualifications structure.

OECD statements focus not only on familiar types of activities whose aim is to increase participation levels in formal education and reduce dropout, but also on pre-school education in the family and the world of work as powerful learning environments. The OECD studies (2001) stress the direct influence of better education and also of good healthcare, welfare, and social and political commitment in creating the kind of climate for living and learning in which knowledge development can occur. In such a climate, co-operation and trust play a crucial role. They help to provide the basis for the formation of networks in which the exchange of relevant information and collaborative approaches to generate new knowledge should enable the knowledge economy to thrive (OECD, 2001).

National policy frameworks

We show in Chapter 4 that in EC countries there are variations in the extent to which, at institutional and company levels, lifelong learning is facilitated by substantial

investment in continuing education and training. In Germany and France, local chambers of commerce make available training for employed workers, and in most countries there are now arrangements to train the unemployed – often, too, to help those likely to become unemployed. Ideas from the 1960s and 70s about continuing education and educational leave have resurfaced in both the UK and the Netherlands in national action plans for lifelong learning, in clauses on training facilities in collective labour agreement negotiations, and in measures to make people more employable.

We detail national VET frameworks and their impact on workplace learning in Chapter 4. Case example 1.2, however, illustrates one country's approach to lifelong learning.

This example, short though it is, demonstrates that in a knowledge economy the encouragement of education, training and development is no longer the exclusive role of government, executed through the formal academic system. Firms, institutions and voluntary organisations have an equally important part to play in ensuring learning opportunities for their members. In a knowledge economy, education policy should therefore be a responsibility shared between government, citizens and market partners.

Reflection

- At macro level there is a clear relationship between expenditure in education and the development of economically valuable knowledge. What policies covered in the chapter thus far aim to promote knowledge development at national *and/or* international levels?
- Traditionally, governments see the need for high quality educational provision to be their prime responsibility. Who do you see to be key educational players in a knowledge economy – and why?

Case example 1.2

The Dutch national action programme for lifelong learning

The Dutch national action programme Een Leven Lang Leren [Life Long Learning] (OC&W, 1998) provides tax incentives for training and grants for employability consultants. Small and medium-sized enterprises, the elderly, and unskilled individuals receive special consideration. Companies that invest in ongoing staff training receive a certificate.

Unorthodox types of learning are under development, as many staff have trouble with conventional programmes and drop out. Appreciation is growing for competencies acquired outside the educational system. Assessment centres enable professionals to demonstrate their skills and obtain certificates. Combining working and learning is becoming more popular, and the skill to learn independently – learning to learn – is deeply valued. Information and communications technology is used to support learning to learn.

The state is trying to help young children, especially from non-Dutch speaking families, keep up with their peers. Starting compulsory schooling at the age of four rather than five is one example. Reducing class sizes and coaching less-gifted students are other efforts in this direction. The Ministry of Education, Culture and Science has commissioned exploratory research on how the knowledge society has affected the educational system.

DEVELOPING KNOWLEDGE WORKERS IN A KNOWLEDGE ECONOMY

Knowledge workers

When looking at the workplace as a site for learning, it is important to investigate how employees are regarded by other stakeholders. Are they regarded as suppliers of labour, identified for use in some carefully designed plan? Or as problem solvers, sensitive receptors for information, potential improvers and innovators? Identifying and understanding the range of perspectives held by powerful organisational stakeholders will help to decide how to develop an organisation oriented towards 'learning', where learning, work and innovation are intricately intertwined (Brown and Duguid, 1991).

Perceptions of 'knowledge workers' constitute a case in point. Definitions here vary greatly. The OECD growth project (2001a) defines the knowledge worker as belonging to the group of scientists, engineers, ICT specialists and technicians that generate knowledge. On the other hand the CPB (the Dutch National Planning Office) gives three different definitions of knowledge workers (CPB, 2002):

- **Researchers and scientists**. These knowledge workers form 0.6% of the total labour force, of which 50% is active in the private sector and 50% is active in universities and knowledge institutions. (This is the most narrow definition of the three.)
- **Alumni of higher education**. These knowledge workers form 28.2% of the total labour force. (This definition is based on the level of general education, with knowledge workers categorised as those achieving at the highest level.)
- **HRST (Human Resources in Science and Technology), including alumni of higher education + managers, teachers and engineers with secondary vocational education level**. These knowledge workers form 36.3% of the total labour force in the Netherlands. (This definition includes personnel who have achieved at the secondary level of vocational education.)

According to OECD data applying to the US and to EC countries, knowledge workers defined in any of the above ways form the fastest growing group in employment. The growing importance of knowledge-intensive employment is shown in Table 1.2.

So 'knowledge workers' form a vital part of the knowledge economy, and it is logical to predict that they will pay increasing attention to their own employability and economic attractiveness as they become more aware of their market value. They are likely to put organisations under increasing pressure to ensure a learning environment that caters for their needs.

Training, self-direction, personal development and coaching are important ingredients in the careers of knowledge workers (Alheit, 1999; Field, 2000), but as they gain

Table 1.2 *Average percentage change in key worker groups, 1992–99*

Group of occupations	Average annual percentage change, 1992–99
Knowledge workers	+ 3.3
Service workers	+ 2.2
Management workers	+ 1.6
Data workers	+ 0.9
Goods-producing workers	– 0.2

Source: Adapted from *The New Economy: Beyond the Hype. The OECD Growth Project.* Figure IV.1., p. 56. OECD copyright, 2001a

more autonomy in determining their own learning goals and in organising their own learning activities, so the control that central management and the HRD function can exercise over their learning processes will decrease. There is always likely to be a need for central co-ordination and steering of the development of competencies involving subject matter expertise and problem solving. To that extent the traditional training function will always be valued. However (as we show in Chapter 8) it will be difficult to centrally organise activities for developing those less easily defined and highly individualised skills that are crucial in a truly knowledge-productive organisation. Such skills are to do with reflection, co-operation, the building of mutual trust, the finding of personal development paths, and the exercise of independent judgement and practical wisdom. Even where the organisation can offer opportunities for such skills to develop, it cannot compel individuals to use them. Knowledge workers may see training useful where it enables them to update or acquire skills that they see to be immediately relevant, but they cannot be forced to acquire those that they may not regard as relevant, nor can they be made to develop in particular ways for the longer term. The question therefore arises: what role, if any, can HRD play in fostering the more broad-based and long-term work-related learning capacity of knowledge workers?

The question is vital for HRD professionals. When the firm is understood as an evolving system of knowledge production and application, with self-organising properties that result from the activities of workers who are relatively autonomous in their networks (Spender, 1996), this presents puzzling challenges to HRD professionals schooled in a very different organisational context.

Non-knowledge workers

Equally important questions arise in relation to those employees who do not participate in what is commonly regarded as the core of 'knowledge work' but who supply the vital infrastructure for specialist knowledge workers' activity. Consider at this point the following description of human and social capital by the OECD (2001):

- *Human capital:* 'the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being'. It is developed in the contexts of family, early childcare setting, formal education and adult education, daily living and civic participation, as well as in formal training and informal learning at work and through specific activities such as research and innovation or participation in various professional networks (p. 18).
- *Social capital:* 'networks together with shared norms, values and understandings that facilitate co-operation within or among groups'. Trust may be viewed as both a source and an outcome of social capital as well as being a very close proxy for many of the norms, understandings and values which underpin social co-operation (p. 41).

As we discuss in the next section and again in Chapter 2, in many of today's organisations there is pressure to invest only or primarily in the short-term training of human capital and in retaining 'key' personnel. In such organisations the coverage of training and career development planning tends to be selective, with 'key' personnel such as managers and 'knowledge workers' having priority, and far fewer opportunities being available for other occupational groups. Yet if we broaden the definition of knowledge workers to incorporate any who contribute to the core of economic

activity in an organisation whose profitability and progress depend primarily on effective knowledge work, this should change the parameters of the HRD investment.

We argue in this book that for organisations operating in an emerging knowledge economy, where the tacit dimension of knowledge and its social construction is a vital source of competitive advantage, the focus of the HRD investment should be on building social as well as human capital. Social capital is to do with the interactions of *all* workers in an organisation. Personnel such as service workers, data workers, and goods-producing workers all belong to the networks of a knowledge activity system that enables continuous adaptation to a dynamic environment through improvement and innovation in work processes, products and services. Their learning and development are crucial to the organisation's continued success. Surely, then, the HRD process must encompass the entire workforce, non-knowledge workers as well as knowledge workers? All form part of the organisation's vital social capital. In a knowledge economy all, in a real sense, are knowledge workers.

THE HRD FUNCTION IN A KNOWLEDGE ECONOMY

New roles and tasks for HRD professionals

The questions we have just posed make it clear that those who have special expertise to contribute to the design and maintenance of learning environments, to tackling barriers to learning, and to facilitating the development of learning skills in individuals and in teams, possess a capability critical to the progress of organisations in a knowledge economy. In Chapters 5 and 6 we review the roles and tasks that HRD practitioners currently hold and the organisational activities in which they are mainly involved. We examine evidence from research that relates to their performance and to the status and focus of the HRD function. In subsequent chapters we propose new HRD roles and tasks in organisations seeking to be knowledge-productive. In Chapter 12 we look across the whole spectrum of current and likely future activity for HRD practitioners and identify what we believe to be core tasks for the profession in a knowledge economy.

The performance–learning debate

One of the questions that arises from our discussion of HRD as an organisational process concerns the extent to which its focus should be on performance or on learning. A lively debate has been taking place over this issue among HRD researchers in Europe and the US (Swanson and Holton, 2001; Holton, 2002). It is relevant to introduce it here before expanding on it in Chapter 5 and drawing our final conclusions in Chapter 12.

The productivity revolution of the 20th century was mainly due to the effective management of standardised production, and to the application of smart routines and procedures (Drucker, 2001). This type of management was extremely successful in the domain of mass production, and the skill of analysing work processes and performance improvement is still applied in business process redesign projects. It found its way into human performance technology where it was combined with behavioural learning theory (Rosenberg et al., 1992; Stolovitch and Keeps, 1992). In those knowledge management systems that rely heavily on the concept of storing 'knowledge' in databases and making efficient use of this knowledge by means of well-organised search engines, the same skill of performance analysis remains relevant.

At the heart of the performance–learning debate, however, lie the questions of whether the HRD process should be focused on performance improvement or on more open-ended continuous learning, and whether HRD activity should support individuals in their learning and development or in tasks primarily related to the achievement of their current work targets. We argue throughout this book that once the focus in an organisation shifts from rules, procedures and systems to the enrichment of work, the exploration of opportunities, and the involvement and reciprocal learning of all organisational members, then there should be a radical reconsideration of HRD's focus. Sustained investment in a work environment where knowledge productivity is the main aim is not only likely to be attractive to employees; it also seems essential for the organisation if it is to achieve and sustain progress in a knowledge economy.

Reflection

- The knowledge worker has just been introduced as a protagonist on the scene of a knowledge economy. In what sense can all employees in knowledge-productive organisations be termed 'knowledge workers'?
- When learning, development and work are intricately intertwined, how do you think it will affect the role of HRD professionals (that is, those who have undergone specialist HRD training and education)?

CONCLUSION

In this scene-setting chapter, our twofold purpose has been to explain our rationale for focusing the book on the organisational process of HRD in an emerging knowledge economy, and to identify key themes that underpin the book's structure and content.

Two of the book's major themes introduced in this chapter are that:

- in an emerging knowledge economy the capability to add value by means of knowledge creation and knowledge application is becoming more important for organisations than the availability of the traditional factors of capital, material and labour, and that
- learning and developmental processes have a crucial role to play in building that capability.

Running through both these themes is another, which has to do with changing notions of knowledge. We observed in the early part of the chapter that if knowledge is regarded as a type of commodity, organisations will tend to be preoccupied with knowledge transfer (moving items of knowledge from one location, person or group to another). If, however, it is regarded as a process, a type of activity system, the greater concern will be to create and sustain a learning culture where that process can flourish through human interactions shaped by social context and harnessed to a shared organisational purpose. Once knowledge-productive relationships in the workplace are understood as key to competitive advantage, this signals major changes for business and human resource strategies and practices. In this chapter we have opened the door to issues of strategising and organising that we pursue in Chapters 2 and 3.

As long as knowledge is regarded as an objective resource, it is also natural to rely on organisational models based on the centralisation of planning and control, and

managed from the top through delegated authority and specialist expertise. Once attention is focused on workplace learning as a primary source of tacit knowledge that has a unique value in ensuring continuous improvement and innovation, then traditional organisational forms and management paradigms become problematic, as do the wider societal, political and economic logics that have hitherto sustained them. Another theme in this introductory chapter has therefore been the linkages between international and national policies to do with lifelong learning and the organisational policies that focus on those same processes.

It is at this point that the role of the traditional HRD function – the final major theme announced in this chapter – comes under review. In the chapter we have highlighted but two of the many critical questions facing the HRD function and its practitioners as organisations increasingly compete and collaborate in a knowledge economy:

- When the organisation starts to be viewed as an evolving, quasi-autonomous system of knowledge production and application, with emergent and self-organising properties that result from the activities of relatively free agents in their internal and external networks, what – if any – role has the HRD professional?
- If, increasingly, there is a tension between the needs and wants of knowledge and non-knowledge workers, between the push for performance improvement and the pull for continuous learning, and between the development of human and of social capital in the organisation, what skills, organisational base and professional qualities do HRD practitioners need if they are to play a decisive part in tackling those tensions?

The themes and questions raised in this introductory chapter mark the starting point of our enquiry into HRD's identity and role in the new world of a knowledge economy. In subsequent chapters our purpose is to achieve an integrated perspective on strategising, organising, working and learning, in order that we can propose major roles and tasks for HRD professionals in organisations operating in that world.