Education and Work in Scotland: Global Knowledge Economy, Enterprise Culture and Entrepreneurship

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Certificate of Originality

I certify that this thesis is my original work and that all references to, and quotations from, the work of others contained therein have been clearly identified and fully attributed.

Dedication

*For John, with all my love
and thanks.*

Acknowledgements

There are several people on whom I have depended heavily for guidance, inspiration and support in the preparation of this thesis and whom I wish to acknowledge with gratitude.

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Abstract

This thesis has grown out of interest in and observation of dilemmas for practice and attitudes to enterprise education in primary and secondary schools in Scotland. There seem to be mixed views on the purpose of enterprise education and its justification to be part of the curriculum, its relationship to other means of addressing work-related purposes of education and shifting policy interpretations that propose to link enterprise education with entrepreneurship education. This latter consideration has been highlighted more recently with the provision of financial support for enterprise education from successful and influential Scottish entrepreneurs. These circumstances are examined in the later parts of the thesis and are preceded by an analysis of the wider context and variety of connections and interrelationships between work and education. Historical, social, political, economic and cultural connections emerge as necessary disciplines for understanding work, how our concept of work has developed and how it has been related to education along the way. Historical analysis is needed in order to analyse and forecast how education and work relationships are developing today and so a history of work and its relationship with education in industrial and post-industrial economies is provided as well as consideration of developments in the traditional but more narrowly defined area of vocational education. More recent developments in global interconnectedness, communications technology and the emergence of knowledge as the major requirement of our 21st Century lives have altered the balance in the education and work relationship making education the more proactive agent in the pair.

Educational policy and practice have in the past been shaped by political and economic changes in society but contemporary attitudes to the importance of knowledge, its application and its transfer, in stimulating economic growth have made learning a sought after 'commodity' and education, although slow to make major changes to school practice, is now in a position to shape the nature and practice of work and workplaces. It emerges in the thesis that although education has been and is influenced by political, social and economic requirements, policy makers arguably have not paid much attention to the social sciences or to philosophical considerations when considering curriculum development. Likewise social science and

philosophical enclaves have not shown much interest in educational theory and practice. Only recently have education faculties been established in many UK universities and begun to develop research cultures that in other disciplines already have long traditions and prestige.

The chapters of the thesis bring together a broad and original compilation of areas of study that provide a scenario of connections that have the potential to inform, motivate and increase the understanding of educators and the makers of education policy when addressing the work-related aims of education. The final chapter sums up the scope of the variety of influences on the relationship between education and work and proposes that, although they provide very necessary bases for understanding, they have over time diminished what the thesis claims to be a necessary element in all education and educational policy deliberations, including those on education for work: that of value-based considerations for the development of the human person.

Suggested ways forward for schools and course design, teacher education and education policy making are provided in the light of the deliberations of the thesis.

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Figure 1 Ford Madox Brown (1821-93). English painter.
Work 1852-65; Oil on canvas; City Art Gallery, Manchester, England
file:///Volumes/GIZMO%203/work%20pictures/brown-work.webarchive

Chapter 1 – Introduction: Issues for Teachers in Relation to Education and Work

1.1 The Context of the Thesis

Formerly a secondary school teacher, I am now engaged in teaching and research in the area of educational studies within higher education. A part of this role is teacher education which consists of the preparation of student teachers for careers in the teaching profession in primary and secondary schools and providing continuous professional development programmes for serving teachers. Assisting teachers and student teachers to consider their developing teacher identities and the professional learning in which they must engage is a considerable responsibility. Thinking about, and discussion of, the purposes of education should have a prominent role in teacher education programmes. In recent years in Scotland, as in most western style post-industrial countries that have had a time of strongly neo-liberal political influence, there has been a period of emphasis on raising attainment and standards in schools with the intention of increasing the economic awareness and activity of young people and thus on increasing national competitiveness in world markets. Education has to operate in a political and social environment that has to respond to market imperatives and has itself become marketised (Ball, 2007). Teacher education has been required to prepare teachers who can engage with a technicist approach to learning and teaching within an increasingly market-driven model for the profession and with demands for performativity, which raise questions about the nature of professionalism and how teachers should view their role in relation to young people's learning. Recent policy documents have placed firm emphasis on the work-related purposes of education and there has been a strong focus on enterprise education and the encouragement of entrepreneurial aspirations in young people while still in school (see Chapters 8 & 9). In Scotland, however, there has been a more measured approach taken than elsewhere in the UK and education is currently moving forward there with more flexible emphases on teachers' professional identity and involvement in shaping curricula. (SEED et al, 2004)

1.1.1 Preparing for Work as a Purpose of Education

Formal education has a wide range of purposes some of which aim to benefit the intellectual development and fulfillment of individuals and some whose justification is the advancement of society and the common good. In school education there are two purposes which pertain particularly to the issues discussed in this thesis and which are closely linked although the advisability of separating them from the wider purposes of education will be discussed. They are that of preparing young people for their current and future social and economic roles in society and that of producing the necessary range of contributors to the future social and economic prosperity of the nation both internally and in its position in relation to the world's increasingly interconnected economies. Christopher Winch (2002) argues that economic aims for education are perfectly legitimate because they can address all of the above-mentioned broader purposes at the same time.

> Vocational education not only concerns the aspirations of people for a satisfying life, but profoundly affects the economic and social prospects of modern societies. (Winch, 2002:101)

Most of the commonly cited purposes of schooling are thus couched in terms of the benefit to the learners involved, with the intentions of providing suitable learning for the good of individuals whether they are to do with improving general facilities of personal enlightenment and critical thinking, as in academic and liberal approaches, or with improving life chances for future roles in society. The other approach, which takes a different focus for emphasis is that of viewing education in terms of its impact on the economic stability and success of nation states. Indeed we have become used to this emphasis for education and are not surprised to have economic purposes highlighted to us ahead of others.

> We are currently . . . . so accustomed to education being discussed in terms of its economic relevance that any other reference point strikes us as curious. (Wolf, 2005:246)

It is against this backdrop that my thesis seeks to examine the numerous influences that have strengthened the relationship between education and the emerging preoccupation with preparing for economic responsibilities connected with engaging with the world of work.

1.1.2 The Questions Arising

There is a social and moral importance that society attaches to paid employment that is related to the task of 'earning one's living' (Winch, 2000:155) which obliges us to provide for ourselves and thus to participate in the reproduction and continuation of society. Historically it has been the family, the church and the school, in different proportions at different times and with varying levels of awareness, that have addressed the task of preparing young people for this perceived responsibility and their progress into their adult working lives. In the more recent past the school has taken on this role to the extent that work-related aims for education are given high priority and contribute to the forming of our normative beliefs about the place of work in our lives as members of society. This study examines aspects of the relationship between education and work in general and what this means for education and education policy in Scotland. It arises from the writer's involvement in teacher education generally, working with both student teachers and serving teachers, and from education for work, in particular in terms of enterprise education, as it has been developing in Scotland. In recent years, Scottish Education has been placing increasing emphasis on enterprise in education and the encouragement of entrepreneurial attitudes and activity within work-related purposes of the curriculum (SCCC, 1995, 1999; SEED, 2002). Enterprise education policy, and indeed wider policy matters, are now heavily influenced by the involvement of entrepreneurs who have invested both time and money in education in order to enable politicians and policy makers to pursue economic ends for school education in Scotland and teachers and pupils to experience enterprise in practice (Williamson, 2001; SEED, 2002). There is currently an expectation that work-related aspects will be situated across the curriculum and be the responsibility of all teachers (SEED, 2002; SEED et al, 2004). Teachers' uptake of enterprise education has been, and still is, varied. Research shows that there is a gap in understanding and perception of what constitutes enterprise education among politicians, policy makers, teachers and even pupils (Brownlow et al, 2004; Langford & Allen, 2002; Fagan, 1998). It would seem a simple matter for politicians and policy makers to introduce an initiative that they judge to be worthwhile, or even necessary, for Scotland and its economic future, and for teachers to develop teaching and learning contexts and pedagogy to embed it in the school curriculum. Education related to work

preparation in the form of enterprise education, however, has not had, and still does not have, an easy relationship with those who teach and learn in Scottish schools (ibid).

It was 'assertion rather than considered argument' that was used to promote an enterprise culture in the early years of Thatcherism according to John Beck (1998:115). Around thirty years after the term was given attention by the Conservative Government of the day, 'enterprise' seems to permeate public life, or at least the use of the term is pervasive. The word enterprise appears in many speeches or articles related to business, education and politics and the techniques of discourse analysis provide insight into the shifting emphasis placed on enterprise over time. Numerous references were made to enterprise among the aspirations commended to the Scottish people on the opening of the new parliament building in Edinburgh, including mention in the speech of the then First Minister Jack McConnell (2004). We have had, since the early days of the devolved Scottish Parliament, a Minister for Enterprise and Higher Education. Speeches made by the Prime Minister and by the Chancellor of the Exchequer are frequently punctuated by references to enterprise, to members of the public behaving in enterprising ways and to the promotion of a culture of enterprise. It is a popular word with politicians of all parties. Business links with enterprise are easy to spot with the term often being taken to mean a business initiative or concern. The main government support to business in Scotland is called Scottish Enterprise and Scotland has until recently had a government department of Enterprise, Transport and Lifelong Learning. There are support mechanisms for Universities in turning their enterprise into businesses, but it is in school education, particularly at primary and early secondary stages, that the meanings and uses of the term enterprise are more difficult to pin down. For the future health of the Scottish economy and for the aspirations of Scottish people it would be helpful if there could be shared understandings among teachers, policy makers, now including business advisers, and student teachers of what is meant by enterprise or at least a recognition that it can mean different things.

My approach to teacher education issues for enterprise education is from an academic background of Educational Studies and a professional background of school teaching and Initial Teacher Education (ITE) teaching. This had not included philosophy, sociology, history, theology, politics or economics as discrete areas of study, other than where they had overlapped with the study of education or at a level of personal interest. I required therefore to engage with reading in all of these areas to assist me in understanding the context of the relationship between work and education and to find answers to some related questions:

1. Why is there some tension in the area of enterprise education? (see Chapters 8 and 10)

2. Is the response to enterprise education representative of attitudes to the work-related purposes of education more generally? (see Chapters 8 and 10)

3. What are the work-related purposes of education? (see Chapters 3,4,5,6,7,8 and 9)

4. What factors have shaped these connections historically? (see Chapters 2,3,4,5 and 10)

5. How have we arrived at our contemporary conception of the meaning of work and its relationship with education? (see Chapters 2,3 and 5)

6. What factors are currently changing the nature of work and its links to the work-related aims of education? (see Chapters 5,6,7,8 and 9)

7. How can educators and the makers of education policy become informed and motivated to understand better the interconnectedness of education and work? (see Chapters 4,6,7,8 and 9)

8. How can teacher educators support teachers and student teachers in preparing to address the range of interconnected purposes of education? (see Chapters 4, 6,7,8 and 9)

The first two of these questions relate to the original stimuli for embarking on this thesis and the other six all arise from the resulting quest to investigate background issues and to discover the threads of development in the relationship between education and work. Consequently information and insight in those areas relating to questions 3 to 8 emerges earlier in the writing and prior to matters relating more specifically to enterprise education

1.1.3 Investigating the Scottish Context

The above questions arise for me from within the Scottish contexts of school education and teacher education. Scotland has an unique educational heritage that comprises the very early establishment of universities that played a significant role in Europe and incubated the period of the Scottish Enlightenment that put the scholars of this small and geographically remote European country to the forefront of philosophical and intellectual influence. It has a strong tradition of school education that is quite distinct from that of the rest of the United Kingdom and that has historically allowed the development of high levels of literacy across the population. Scotland also has a history of upholding keenly observed spiritual values associated with a work ethic.

The Scottish experience of moving from an agrarian to a commercial society and then through industrialisation to post-industrialisation and beyond is similar to that of many western style nations. The changes that have taken place have played a significant part in the development of the British nation despite Scotland's population being approximately one tenth of that of the UK as a whole. Scotland's industrial past saw the development of shipbuilding and heavy engineering, particularly across the Central Lowlands, earning a reputation for quality and inventiveness that put the small country on the world map. The creator of the "work engine of the Industrial Revolution", James Watt, was from Glasgow and his inventions supported the move from a commercial to an industrial society and a "rapid succession of Scottish inventors, engineers, doctors and scientists" made their mark on industrial development across the globe. (Herman, 2002:272).

Education had become highly valued in Scotland and widespread primary education had been giving even the children of poor families opportunities to progress on merit. The Education Act of 1872 indicated a strong level of commitment by the state in undertaking a responsibility for the education of the citizens of Scotland.

> The idea of a meritocracy based on 'equal opportunity' could be achieved only through more state support for secondary education. (Devine, 1999:402)

The Scottish Enlightenment and subsequent surge in Scottish confidence and achievement prompted an interest in education for access to the professions. Lower middle class families began to aspire to education beyond basic levels for their children and gradually more opportunities opened up for scholarships and even some free education for children from working class families. Development in the economic and work environments was stimulating an interest in education for all. There is debate about the success of attempts at establishing a meritocracy as, in practice, the main beneficiaries were children from middle class families and those from working class families did not in fact have much access to the social mobility that the system promised. (Devine, 1999:404) The availability of free secondary education was further extended in the early twentieth century. Academies and Grammar schools continued to provide a classical education that led to the professions. In many state provided secondary schools however the links between *education* and work in this era could be better described as that between *schooling* and work for many young people within the system of secondary education in industrial society.

1.1.4 Contextual Features of Education and Work

The education and work-related factors selected here for consideration have each been and continue to be the subjects of intense scrutiny, debate and research. This study is unique in gathering together a range of aspects that are of particular relevance and significance for teachers and policy makers engaged in managing and supporting the work-related purposes of school education. To this end the aspects are conceptualised and their interrelated facets viewed in terms of their contemporary relevance for school education. But concepts change and the developments in work and education embrace different meanings in different eras. These explorations require applications of history, philosophy, political economic theory, theology, sociology and educational policy studies and all seem necessary to address what in essence appear to be questions about the purposes of education. Teachers and policy makers are unlikely to have extensive in-depth knowledge of all of these disciplines, or in many cases any of them, but each of them illuminates connections between education and work and so the general acquaintance that is provided in this thesis, should be invaluable to all.

There are also cultural differences in the meaning of work among countries that have different social histories so this study mainly relies on the concept of work as it has evolved in Western, industrialised and developed cultures that have similar or shared experiences to that of Scotland and the rest of the United Kingdom. David Corson (1993), for example, points out the different development of the concept and culture of work in agrarian societies to that of urban-industrial societies that are concerned with 'the rise of wage labour and bureaucratic employment' as an alternative to 'the agricultural and craft production that shaped people's expectations and views about work in earlier times.' (p 11)

At the same time as enterprise education and even entrepreneurship education is being championed as work-related education in UK schools there is a lack of shared philosophical basis for its inclusion that is at odds with the rest of Europe, where vocational education is generally more valued (Winch, 2002:106). Both of these economic purposes prompt consideration of how education in preparation for work is, and should be, positioned in curricula. For much of the history of school education in the UK, the purposes have been fairly straightforward and the aims in retrospect are clear. Most school education has been offered to young people within the limits of what society expected of their social class. It has been tailored to produce a population educated to just the sufficient level to fit them for those occupations that were available for mass uptake. Farming and factory labouring did not require a great deal of education with more than the basic level of education considered as a possible cause of dissatisfaction or discontent. There is a proud history in Scotland of primary school education being free and available to all, supported by the Church of Scotland since the sixteenth Century. These schools were founded under the influence of John Knox (1505 - 1572), who headed the Reformation in Scotland, with the aim of promoting reading and writing skill and thus access to the moral guidance of the Bible (Graves, 2004). In later years vocational education in Scotland came to have a fairly prominent role but was seen as a poor relation of the 'academic' education provided at High Schools that prepared most of their students for university or the professions.

Shifts in the nature of work due to the onset of more sophisticated engineering technology required more complex skills and education responded in widened opportunities and extended school provision for all. Secondary education was made available to all in Scotland in the nineteen thirties. The leaving age of compulsory secondary education was raised from 14 years to 15 years in the nineteen fifties then to 16 years in the nineteen sixties. Present day educational aims in Scotland are stated in new documentation currently being developed by a Review Group of the Scottish Executive Education Department (SEED et al, 2004), entitled A Curriculum for Excellence, as follows:

> Our aspiration is to enable all children to develop their capacities as successful learners, confident individuals, responsible citizens and effective contributors to society. (SEED et al, 2004)

The onset of the technological revolution has heralded huge changes in the ways in which societies, both locally and globally, communicate and enter into trade, freed by communications technology from the constraints of time and distance. Manufacturing industry has changed radically due to the burgeoning electronics industry and is now moving away from traditional manufacturing bases, such as the in UK, to other countries where labour and materials are cheaper. The UK economy needs different kinds of industry and the setting up of small businesses is being encouraged as a means of revitalising the economy and providing employment by utilising the skills available. The development of an Enterprise Culture has been encouraged to make us competitive in the knowledge-based requirements of an increasingly globalised economy. This new kind of work requires individuals to have different sets of skills and new attitudes to changing working conditions. Education is required to shift its approach to provide the kind of learning and skills development for building social capital for this new world of work where the knowledge worker is the most important player in the economy.

In considering developments in the western world, Max Weber (1930) pondered the notion that much of what is recognised as comprising modern Western society has its roots in classical Greece. Weber claims that this is true for such bodies of knowledge as science, theology,

mathematical based astronomy, geometry with rational proof, mechanics, biological and bio-chemically-based medicine, historical scholarship, systematic political thought and law based on systematic forms of thought. Our preferred forms of art, music and architecture have also been influenced and shaped by classical Greek thinking. Although most of these disciplines were also developed in other parts of the world and in diverse cultures, a particularly Greek approach to life and learning can be recognised as the dominant influence in many aspects of western style cultures. Weber further claims that this same influence can be recognised in one of the most significant developments of the modern world, and the most fateful in our developing concept of work, that of capitalism. Although forms of capitalism have emerged in other cultures and societies, those of the occident are of a different sort: the rational organisation of free labour. So to have some understanding of how our modern notions of the meaning and purpose of work have derived, its roots have to be traced to the birthplaces of western civilisation.

Philosophical approaches to understanding the nature of work encompass a theology of work that can be traced from the early days of organised religion which is responsible for much of the social development of the concept of work and its political and economic relationships with education. At the onset of industrial society, the move from craft and tool based to factory and machine based work brought about an increase in the quality of production but also a transformation in the quality of work that modified ways of living for individuals and for large groups in society as well as allowing capitalism to flourish. A social consequence of these changes was the creation of a proletariat (Chenu, 1963:5). Chenu proposed in the middle of the Twentieth Century that a theology of work had only begun to be developed in the Christian traditions in the industrial mid-Nineteenth Century. More recent large-scale changes in the nature of work, brought about by globalisation, neoliberalism and widespread individualism are again having an impact on people's lives and the nature of society. From the emergence of the post-industrial era human engagement with and experience of work has become more secular although formative religious influences persist. Despite this trend of materialism, work remains a socially and culturally constituted moral category of human endeavour and continues to be

related to values and responds to shifts in values and questions of identity and self realisation. The threads of this theological context for work can be identified in and traced through several of the thesis chapters.

1.2 Purposes, Method and Design

As indicated in the questions posed above, this thesis aims to explore the connections between education and work by considering areas for study such as the concept of work, factors which have shaped it, factors which are currently challenging the nature of work, curricular imperatives for the education of young people for an unpredictable working future and the challenges for educational policy makers and teachers in fulfilling the aims and purposes of education. This is done through historical forms of analysis, clarification of concepts and critical reading and evaluation of texts and policy documents and their underlying rationales. The writing explores a wide range of aspects with influential connections between education and work so, rather than a separate review of literature, relevant reading in these theoretical and conceptual areas of work and its evolving relationship with education is embedded and referred to throughout the writing. The disciplines used to explore the range of factors are mainly those of history and sociology. Philosophical, political and economic theory is referred to but less emphasis is placed on these approaches because of the writer's more recent introduction into these areas. It is the intention that the resulting awareness, knowledge and understanding will provide a useful background resource for all those who are engaged in education, particularly those wishing to incorporate economic or work-related aims within their broader aims for learning and teaching. Looked at through an educational lens this should enable the identification of factors that may have an impact on how teachers can support pupils in preparing for their future careers and roles in society. Ways of understanding and developing the connections between education and work, for the benefit of both policy makers and teachers, will be drawn out of the study. In broader terms it is hoped that the relationship between work-related purposes and wider personal fulfilment purposes of education will be illuminated. The role of education as a preparation for work will find some justification for its place as a main purpose through which all of the others can also be realised and the validity of

this view will be explored.

1.2.1 Outline of Chapters

The chapters of the thesis take particular aspects that connect education and work, clarify the specific background issues and explore their impact on the nature of work and on educational development and policy directions. They provide a critical analysis of the connections between education and work through consideration of the concept of work, factors that have shaped it and influences that are currently transforming the nature of work. By linking these to work related purposes of education, both historical and contemporary, they provide a scenario of connections that can inform, motivate and increase the understanding of educators and the makers of education policy when addressing the work-related aims of education. The broad issues for consideration and questions for which answers are sought are outlined in this first chapter.

In many ways work defines individuals and classes in society. The type of work that a person does sends out messages to society about what that person is like and assumptions are then made about their role in society. The kind of work that one does acts as a badge of our identity. It distinguishes who you are and your status within society. We have moved from the industrial era when most of the population were employed in factory and technical roles to the post-industrial where education has now become the gatekeeper to the nature of our jobs and by extension our roles in society. An historical exploration of the ways in which our concept of work has developed in western nations, how our attitudes to work have been shaped and the impact that work has on our lives, is provided in Chapter 2. It is important to use historical analyses of the concept of work and its relationship to education because there have been significant shifts over time and in different historical eras. This awareness of historical factors is needed in order to analyse and forecast how education and work relationships are developing today. How can we know if we are improving things today without sensitive understanding of a scholarly concept of the history of work to allow us to make comparisons?

Chapter 3 outlines issues from the Industrial Economy that have altered work patterns and consequently the very nature of societies including moves to provide education for all. The writings of three historical authors who have contributed to and influenced our understanding of the nature of work and its impact on workers and on society are examined, namely Karl Marx, Max Weber and Hannah Arendt. These are, I believe, important theorists of work in the age of modernity. Karl Marx, after Hegel, materialises the concept of work as alienated labour under industrial capitalism and provides a window on the future for a totally socialised means of exchange where labour is a form of self-realisation in the Hegelian sense, that is a form of self transformation. Education becomes a means towards the ethic of this self-transformation. Weber by contrast theorises work in relation to capitalism by tracing an ethic that runs through Protestantism in relation to good works on earth and where work becomes a form of spiritual elevation. Arendt in contra-distinction to both Marx and Weber views work in terms of the distinction of labour, work and action. These are among the great theorists of modernity on the centrality of work to the human condition and they provide a set of handy reference points to investigate the nature of work in historical, sociological and ethical terms. This is a necessary preliminary to understanding the shift from feudalism to capitalism and for understanding the related alterations and conceptions that accompanied the changing nature of the relationship between work and education in the industrial economy. Major events that instigated shifts from agrarian and commercial to industrial organisation of society are traced and developments that affected education recognised. In the industrial economy, economics and the nature of the economy shaped the organisation of work and society has reflected these developments. In the industrial era, formal schooling became important in order to teach workers the elementary skills of reading and writing but also the social skills of being good, docile, punctual employees and to know their place in their world. At the same time, inspired by Marx and other utopian and largely socialist thinkers, imbued with the ideology of the rights of man and equality for women, education began to be theorised as a form of resistance against straightforward reproductive training ideologies. These views saw the flowering of concepts like equality in relation to education that became the cornerstone of welfare state development and marked the beginning of the universal impulse for schooling, first at the primary, then at the secondary

levels, but also the tertiary and preschool levels. Schools were developed in this era as part of social policy, as witnessed in the shift to comprehensive schools, striving to deal with questions of social equality and justice.

The original conception of education for work, namely vocational education, is examined in Chapter 4 and the developments that have contributed to shaping work-related education in Scotland are given emphasis. The chapter examines some of the dilemmas, distinctions and tensions that arise when vocational education is provided. The particular ways in which vocational education has developed in Scotland are traced from 1947 to the present day and to its location within general curriculum initiatives currently being developed. It could be argued that in a sense the term vocational has little current relevance and that it has become just another label for education that provides preparation for particular occupations or for employment more generally. We can now see elements of vocational education in liberal or academic education and even in citizenship education.

A new type of society from that of industrial society has been emerging and the nature of work in post-industrial society is hugely different to that of either the pre-industrial or industrial eras. The impact of developing technology and global economic phenomena on reshaping work is the subject of Chapter 5. Some theorists believe that the nature and pattern of working relationships has changed fundamentally. Both work and education have simultaneously become more significant. More and more, education – regardless of whether private or public – determines success in the competition for occupations, success in career paths, the ability to live a certain lifestyle and supports the new professionalism of work as a new form of vocationalism. Other theorists have pointed to the casualisation, the feminisation and the globalisation of work with attendant threats to the structure of occupations and distributed skill sets between the first and the third worlds. A tiny proportion of theorists, drawing on their scholarship and imagination have forecast that the nature of work in the post industrial era becomes a matter of home-working or multiple jobs as a new bohemianism resisting the logic of neoliberalism. They argue, for instance, that in post-industrial society countries have to

operate in a climate of global trade and capital mobility that means competing for industry and jobs in a global labour market. They maintain that people need more skills and schools should no longer be considered merely an aspect of social policy. Education, they suggest, has become the central plank of economic policy. Shifting work patterns and the 'end of work' thesis are traced through the writings of authors who offer analyses of the effects of this altered relationship among education, work and the economy. I have chosen three theorists whom I think best represent an attempt to theorise work in the changed conditions of post modernity: Jeremy Rifkin, André Gorz and Anthony Giddens. These authors trace shifting work patterns and speculate about the future of work. They offer analyses of the altered relationship among education, work and the economy. Jeremy Rifkin theorises the end of work. In his view greater technological sophistication increases productivity but radically reduces the need for any form of mass labour such that only a few technical jobs will require to be filled. André Gorz by contrast, an old socialist, talks also about the end of work and yet sees a possibility for reclaiming the nature of work in post-industrial society. Anthony Giddens, the doyen of Third Way politics and New Labour suggests a more differentiated analysis and a more market led solution. I have chosen these three theorists of post-industrial society as a way of counterbalancing the three theorists of industrial society discussed in chapter 3. They provide theoretical reference points and are also astute commentators, each of whom is recognised for their distinctive theoretical contribution to discussion about the changing nature of work. The extent to which post-industrialism has become reality, whether we have moved into its aftermath and the influence that it has had on education for work are interesting questions that deserve the most careful scrutiny.

Two particular conceptions have dominated the intellectual landscape in relation to post-industrialism and the specific historical turns it has taken. The first is globalisation; a concept that has been contested from its beginnings and yet one that in its essence, whether it be economic or cultural implies a greater interconnection and integration among the sovereign nations and economies that currently comprise the world. Globalisation has been theorised in terms of the flows of money, people, trade, resources and ideas that have begun to accelerate, it

seems at an exponential rate, since the advent of the Internet and the worldwide web. Neoliberalism is another big theory that deals with the kinds of politically driven economic changes that have resulted from the end of the Keynesian settlement and the so-called end of the welfare state with its commitment to full employment. Neoliberalism is associated with a set of privatisation policies that has shrunk the public sector and impacted upon schools and hospitals through structural adjustment policies and the encouragement of multinational work. The nature of employment has undergone profound changes, as has the relationship between education and work. Chapter 6 deals with the influences of globalisation and neoliberalism on society and their consequences for the nature of work and related education policy. Advances in new technology have brought about large-scale changes in communication and transport that have in turn made economic systems more globally connected. The acquisition of global knowledge capital and participation in both manufacturing and knowledge economies are heralding major shifts in the nature of work and demands upon education at the beginning of the twenty-first century. The spread of neoliberal style government and its fundamental effect upon relationships among education, work and economics is investigated. The privatisation of many aspects of education has accompanied the privatisation of work under neoliberalism, with the promotion of an ethic of self-reliance, self-responsibility, i.e. no longer a dependence upon the state, that is harnessed to the policies of an enterprise society based on individual entrepreneurship.

The knowledge-based economy that has arisen from ever increasing emphasis on knowledge as a highly valued commodity of itself is the focus of Chapter 7. This shift, that has been likened to a new industrial revolution, once again transforming the nature of work, has major implications for the relationship between new and updated forms of work and education policy and planning. If almost every occupation either produces knowledge or depends on the reproduction of knowledge, then clearly education must be prepared and at the forefront of development of the skills required to access and apply appropriate knowledge. The notion of the knowledge economy came to prominence in the early nineteen-nineties and it grew out of the economics of knowledge and the sociology of post-industrialism. The concept and its

various theoretical formulations has offered new and important relationships between education and work for education already is a form of knowledge work and the relationship of knowledge work to values of research, innovation and creativity seemed to offer a new rationale and hope for education as a means of providing future employment. Where historically, in the eras of pre-industrial, industrial and post-industrial society, education had developed in response to social and political drivers in a reactive manner, in a knowledge-based society education and educators can become pro-active and provide cutting edge opportunities that lead the way in reshaping work. Thus the concept of a knowledge economy is examined and its implications for both work and education are explored.

Chapter 8 outlines the origins and early stages of the development of an enterprise culture in Britain and its subsequent spread into the field of education. This chapter tracks the development of a politically redefined notion of enterprise into education and of attempts to bring neo-liberal approaches to preparation for work into schools through the promotion of enterprise education. The ensuing impetus for including enterprise education in curricula and the tensions that this has caused are explained. Here we have a specific policy aimed at the reconstruction of culture – an end to the culture of dependency that promised a land of the self-employed and small businesses, of university researchers quick to capitalise and patent the results of their research and to bring a market orientation where wealth generation and enterprise are seen as social virtues, cultivated in the name of the productive society.

A long-standing connection, and indeed conflation, of enterprise education with entrepreneurship education is explored in Chapter 9. The connections are explained and various approaches to promoting entrepreneurship through education are evaluated. Ambiguities can arise in different cultural interpretations of what it might mean to be entrepreneurial and so definitions and an examination of intentions is appropriate. Tensions are developing between politicians' and education policy makers' aspirations to prepare school pupils for contributing to national economic prosperity and teachers' suspicion and unwillingness to collaborate in what some see as a one-dimensional interpretation of the

purposes of education operating with a narrow focus and to the detriment of wider concerns for the development and dignity of the whole human person.

Chapter 10, the concluding chapter, seeks to establish a range of theoretical and practical curricular implications arising from the investigation and evaluates recent policy and curriculum development in Scotland in relation to the range of education and work issues to have arisen. These above chapters progressively describe and analyse the history of work as it has developed in the west and particularly in the UK with a clear focus on the experience of Scotland and on the policies that Scotland has developed in order to promote a productive society. The chapters provide both an historical narrative as well as a theoretical understanding and a set of conceptual takes on the changing nature of work in relation to the industrial/post-industrial divide. It does so without engaging in an extended literature survey of the sociology of post-industrialism that can be traced back to Daniel Bell and Alain Touraine. My purpose is to use representative thinkers who are well known and acknowledged within the literature as springboards for writing about the changing nature of work, its significance and the relationship of work to education and vice versa. The focus of this thesis is that relationship considered within the Scottish context, with an accent on policies that have been developed recently as a response to these epochal changes. I have conceived of this focus from the point of view of a teacher educator who is responsible for the education of teachers who will come to practise their skills under the policy references of an enterprise curriculum.

1.2.2 The Curriculum Problem

Within the education system in Scotland there has been ongoing effort to position vocational education within the school curriculum and increasing attention paid to 'enterprise in education' and 'education for work' in education policy and practice. A major purpose of education has traditionally been the pursuit of human well-being and a sense of fulfilment within society. The question is whether learning for the purpose of preparing for work, by acquiring sufficient human capital to be a contributor to society can, as Winch suggests above, address the pursuits of human happiness and well being. Although policy makers have the task of generating and

disseminating initiatives, it is teachers who are charged with the task of putting initiatives into place through devising contexts and selecting resources to support learning. In the area of education for work, relevance and realism are important prerequisites for this task but it should not be assumed that teachers automatically have the necessary knowledge and awareness of work related issues, to be able to provide this relevance and realism.

Scottish documentation on education for work and education/industry links, terms which were used for enterprise education for some time in Scottish policy documents, while clearly concerned about the future well being of our society and our young people's ability to contribute to, and participate in that well being, offers little evidence of theoretical background for the documents produced, analysis of the reasons for, and implications of seeking to produce more entrepreneurial young people or of the validity of the aims proposed. There is scant reference to any literature, research or even bibliographies of sources within documents, so that it is unclear what the intellectual basis is for the recommendations made or even who is really formulating the policies. This vagueness is not helpful to teachers who should have the opportunity to reflect upon the ideological implications of the initiatives that they are asked to put in place. Recent documentation appears to be more transparent in recognising their sources and influencing factors and this will be considered in the discussions to follow. It is hoped that the deliberations of this thesis will be helpful to teachers when they are asked to operate in areas such as enterprise education. This and other cross-curricular areas make demands on teachers beyond what was encountered in their initial teacher education preparations that consisted in general pedagogy and perhaps in one or two specialist curricular areas. Because of support with material resources, many find it relatively straightforward to deal with the 'how' questions for implementation but have scant time and support to answer the 'why' questions, if indeed they are ever raised. Projects and programmes for enterprise education have been praised in some schools for their apparently successful results but there seems to be little consensus about the benefits or future impact of such initiatives. There is a need for awareness of current debates about the changing nature of work and the ability to engage in some creative thinking in attempts to predict what will be of use to young people. Global political and social

changes should be recognised and understood by teachers who should then be able to design their teaching strategies to equip learners for coping in such environments. Teachers should confront the ideological implications but policy makers have rarely offered any opportunity for such consideration or debate. The employment patterns and opportunities currently available for school leavers differ significantly to what was available to most teachers, even fairly recently qualified and young teachers, at the end of their compulsory schooling. Society's position in relation to work has changed rapidly in recent years and is continuing to evolve. How much more challenging is it then to predict what will be relevant for primary school pupils who won't be moving on from school for perhaps ten years or more. Along with grounded knowledge, some perceptive 'horizon scanning' and 'educated guessing' is required in order to provide the best preparation possible for young people. This would be greatly enhanced by awareness of how we have come to our current understanding of the concept of work, factors that influence the contemporary status of work and some of the modern and post-modern contexts, which are redefining work. If work is being redefined then it is crucial that educators are aware of and flexible enough to cater for the altered requirements of young people in preparing for their working-related roles in society.

Policy makers in Scotland are clearly interested in promoting enterprise in education and more recently have emphasised a desire to produce more entrepreneurs from the present generation still in school. This is a reasonable aspiration given shifts in the type of society in which we live and the likely requirements of our young school aged citizens as the economically active adult citizens of the future. In contemporary neo-liberal society individuals are increasingly being made responsible for their own economic welfare as the scope of the welfare state is diminished. School education has a duty to support young people in preparing for this responsibility. Economic and financial education is becoming increasingly necessary for both individual preparedness and the country's future economic growth.

Despite the onus placed on teachers to prepare pupils for their future work roles, some will have had little or no experience of work situations outwith education and their own teaching

profession. Many will have the experience of student jobs that give some sense of a different working environment but the motivation for these occupations is different to that of employees for whom these jobs provide their main employment. Mature entrants to the teaching profession have often had experience of other types of work that can bring some realism but this is often in areas that have required different use of qualifications and that may have been abandoned with relief. Such experiences are not always positive. It is in fact very difficult for teachers to bring personal relevance and realism to their awareness of the world of work outside of education or to present from their own experience in an open-minded and encouraging manner. There are examples of good practice in Scottish schools of working closely with partners from business and industry to address this issue and tap into a wealth of expertise which can be very relevant and real to pupils. Indeed recent documentation in Scotland positively encourages such links and the business community provides considerable support and resources. These initiatives are becoming established but often concentrate on enhancing enterprise or education for work practices in schools that are topic or project related. If preparation for the world of work is a main purpose of schooling then teachers should be working towards making the entire curriculum relevant to that preparation. It needs to permeate the curriculum rather than be an added extra.

Scottish teachers are being provided with examples and urged to engage in activities, which relate education to work and preparation for work. This is despite recent and continuing debates on the nature of work and the possibility, to take one current, though contested, area of debate, that work as we know it may be coming to an end (Giddens, 1998; Gorz, 1999; Rifkin, 1995)(see Chapter 5). In Scotland a suggested national framework for learning, relating education and work, is available to teachers to assist in providing a structured and coherent approach (SEED, 2002). Amid speculation about the type of work environment of which young people will become part, however, it would seem unwise for teachers to proceed as if the status quo with regards to work will remain in place. The curriculum is being amended to try to provide enterprise education, to encourage entrepreneurship and set up a range of opportunities under headings such as education for work, when in fact the curriculum needs to

be completely revamped. The current structure of the curriculum, based on the building blocks of discrete subject areas, strongly supported in secondary schools and increasingly in primary schools, operates against aspirations to prepare young people for their future work and economic roles in society. An understanding of the nature of work and why it has become so central to our economic and social understandings would be a useful context for teachers to consider the ways in which they might influence the aspirations of young people. Many of the issues surrounding education for work are contested concepts and young people deserve the opportunity, prompted and inspired by their teachers, to engage in debates about the impact of these issues on their own lives. Better understanding of the place of work in our lives and the contemporary forces which are challenging it, would allow teachers to consider more realistically what the future of work might be and how they might best enable their pupils to prepare for that future.

Chapter 2 - Historical Development of the Concept of Work

2.1 What is work?

In an investigation of the relationship between education and work it is useful to define what may be meant by work. Many people think first of all of their paid employment when they think of work, but the word has many other meanings and carries with it a lot of social and cultural connotations that complicate attempts at definition.

> Although it is always associated simultaneously with dignity, life, production, history, the good, freedom, it connotes no less often evil, suffering, pain, sin, punishment, servitude. (Derrida, 2001: 44)

Paid employment is one interpretation of work that has come to have great significance in our society (Winch, 2000:22). In many ways work defines individuals, and the type of work that a person does sends out messages to society about what that person is like and assumptions are made about their role in society. Some of these may be accurate signals and some may be merely a veneer that offers a picture of the way in which a person wishes to be understood. Work can also mean activity to which we apply ourselves and that may produce end results, for example, artistic or musical creations or some altered personal state of well-being through the work put into physical exercise. Although we use the term work in relation to sporting, artistic or leisure activities, a frequently present ambiguity of use can be sensed through the following comments on the effort expended in playing tennis:

> Neither can tennis be a pastime, for it is too laborious for pastime, which is only a recreation, and there can be no recreation in sweaty labour; for it is laid as a curse upon men, that they shall live by the sweat of their brows. (Cavendish, 1664, cited in Thomas, 1999:9)

> Tennis, which our gallants make a recreation, is much more toilsome than what many others make their work; and yet those delight in the one and these detest the other, because we do this out of necessity, and the other out of choice. (Boyle, 1645, cited in Thomas, 1999: 9)

To define or understand work requires wider exploration. Paid employment, in the sense of a 'job' or of 'earning a living', is a relatively recent phenomenon in the development of human

history. In Greek and Roman times, most of the heavy work was done by slave labour, and there are ways in which this concept of forced labour can be traced in varying degrees up to the present day. Indeed, in the present day, there are examples of arduous and exhausting work, such as child care or housekeeping/homemaking, that are vital supporting roles to those engaged in economically productive work and therefore to the wellbeing of communities and flourishing of economies, that are not paid or do not command wages. The role of family carer became more distinct from that of family provider following the setting up of large scale industrial production in factories and the definition of the family economic unit came to be shaped by welfare reforms and the concept of a family wage (Brown & Lauder, 2001). A great deal of voluntary work is undertaken without expectation of remuneration.

There are also cultural differences in the meaning of work among countries that have different social histories of work, so this study mainly relies on the concept of work as it has evolved in western, industrialised and developed cultures that have similar or shared experiences to Britain, and Scotland in particular. David Corson (1993:11), for example, points out the different development of the concept of work and culture of work in agrarian societies to that of urban, industrial societies that are concerned with the rise of wage labour and bureaucratic employment as an alternative to the agricultural and craft production that shaped people's expectations and views about work in earlier times.

Richard Donkin (2001) refers to the scant and patchy evidence that archaeologists have of work in pre-historic times. He raises the question of whether all work was done merely for survival, as we might expect of e.g. hunting and fishing, or whether some activity was at a higher level of development and undertaken for purposes of physical and mental improvement e.g. more sophisticated tool making or more comfortable living conditions. The latter seems possible since evidence of art and emerging culture has been found from the earliest evidence of human ways of life, but why would individuals engage in extra activity beyond that required for survival? To make life easier or more comfortable for themselves and particularly for offspring is one possible answer and a sentiment that we would recognise

today. The organisation of work introduces issues of power and raises questions about who controls both the means of production and the actors who carry out the work activity. This interaction introduces social and political factors that have been intertwined with the development of the concept of work throughout its history. To reach some understanding of what work is, exploration of various discourses can provide some clues as to how we have arrived at our contemporary constructs of work. The historical discourse provides us with markers of significant developments in a factual tracing of events and voices through time. Indeed it is through reflection on historical developments that we can gain philosophical insight into social, political and economic developments of the concept of work and therefore conceptualise a framework against which to attempt to understand contemporary responses to changing circumstances.

2.2 History of Work

In *The Concept of Work: Ancient, Medieval, and Modern* (1992), Herbert Applebaum provides an extensive historical account of the development of our modern concept of work. I required a background of historical analysis and this became an influential text informing this aspect of my explorations of the concept of work for this thesis. Although in seeking information to provide me with background understanding I consulted a wide range of texts, I came to rely particularly on Applebaum's straightforward account of events because it is wide-ranging and has provided a level of detail in a factual and informative manner that I have been able to use as a basis for this chapter. Applebaum illustrates the ways in which work has evolved, through the ancient, medieval and then what could be referred to as the modern western world and what arguably forms the basis of our concept of work today.

> In our view of work in the ancient world, we peer into our origins, and, as we do,
> we see an original unity between life and work. (Applebaum, 1992: 167)

In emphasising this link historical link between life and work I have noted several cultural, economic and political shifts in society for further study and exploration of the impact that they may have had on the development of school education. This chapter goes on to outline

my findings from the discipline of history.

2.2.1 Early Evidence of Work

There is evidence from archaeology and the study of human development in primitive times to provide information on activities that can be described as work and the education required to transmit and perpetuate related skills can be inferred from the continuity and development of social groups in early periods of history. Early forms of work are characterised by tasks that were carried out for basic survival needs such as finding food and water and ensuring safety. Animism, totemism and ancestor worship are thought to have developed in primitive societies based on evidence from long-hidden and undeveloped tribes that have been discovered in more recent times. To study the development of education at any stage it is necessary to know the educational aims of the time and seeking to identify these aims for such early stages of human development can be assisted by looking at these primitive peoples, whom Graves (2004:8) refers to as 'savages or nature peoples', and their cultures. Aims of education would have been unconscious and so would not have involved the political, social or moral ideals of more sophisticated societies, but could be expected to have been directed towards the work needed to provide for immediate needs and wants of the group and for its safety and survival. There would have been some theoretical training in connection with spiritual or mystical matters as tribes invoked spirits or interpreted nature in search of understanding of unseen forces or influences (Graves, 2004). The practical elements of education would have been conducted in the family group so that the young would learn to provide the necessities of living. The young men of the tribes or clans would have received further training and initiation from the shamans or medicine men. The methods would have been demonstration and direct instruction so that the learners could imitate and practise the required skills.

The first civilisations came into existence in places that were easiest to defend and provided the best access to sufficient water and food gathering. These early civilisations saw the development of farming and related engineering skills, for example water management and

drainage, and more sophisticated folk culture and related religions. Architecture, as, for example, in ancient Egypt, typifies strides in cultural development and the organisation and management of society into status groups for different kinds of work. The building work and agricultural labour, that archaeology tells us was conducted on massive scales in some societies, was made possible by extensive use of slave labour. It is in civilisations such as Egypt that we see schools being set up for the organisation of learning and the transmission of skills required for work and the maintenance of culture, although these would have been provided in purely practical fashion (Graves, 2004).

2.2.2 Greek and Roman Attitudes to Work

An important institution in the ancient Greek lifestyle was the household, which consisted of an extended family and its associated retainers. The extent of the land, the size of flocks and the amount of treasure accumulated from wars and raids were indicators of wealth. This wealth allowed a gift economy to flourish, the generosity of which indicated the power of the noble householder. The kinship group was the earliest form of producing unit, working together to provide for the needs of the members of the household. Work had the significance of a religious act and, due to its close affinity with nature and the land, agriculture had a high status. It was honourable to work on the land but what was undertaken by nobles would be mostly managerial and symbolic. Slave labour was used to carry out the menial household and field tasks. Other than nobles and slaves within the confines of household farms, there may have been free peasants with small portions of their own land and herders with their own flocks. There was some trade, but the traders themselves were ill thought of because they worked for their own profit at the expense of others. Hired labourers had the lowest status of all. A recurring theme was the high status of agricultural work due to the ancients' dependence on farming and the fact that the greatest majority lived off the land. Women enjoyed respect and honour as the housekeepers of estates and some could achieve status in their own right in professions such as midwifery or nursing which were undertaken only by women.

The need to work was part of the religious myth of the ancient world, viewed as necessary to do ones bit towards the maintenance and development of the household and thereby embedding the notion that work is everyone's lot in life. A positional hierarchy emerged as arrangements of the social order of work developed. These early social and cultural mores set a pattern that underpins our attitudes to work to the present day.

> Mankind was now to be forever consuming - it would consume its man made products, the resources of nature, and even each other through social injustice. Producing and consuming, working and fabricating, shaping and forming materials - this must go on and on, incessantly and forever. Work must go on with no escape. (Applebaum, 1992:168)

Individuals would learn how to carry out the tasks of their daily lives from family members. There would have been on-the-job learning with agricultural and household skills passed from father to son, mother to daughter, or master to slave within the household setting.

Cities began to emerge as the double imperatives of trade and defence brought about the gathering of people in relatively large numbers in strategic locations near sources of water. The family system as the basic unit of work and production gave way to the cities as centres of trade and consequently of power and influence. Work began to be viewed in terms of the value of its products to the ultimate users rather than any abstract value relating to survival needs. An Aristotelian view was that work undertaken for production in the household or farm was inherently good because it satisfied natural needs, whereas the production carried out by craftsmen or artisans in the polis or small city state was unnatural because its purpose was to satisfy a want for money. This is the attitude that was written of at the time, but since the records come from the writings of nobles and scholars, they don't give any indication of the ways in which labourers or artisans themselves viewed the status of their own work. It may be that they were less dismissive of its value and took a pride in good workmanship, but there is little evidence of the workers' views of the value or status of their labours. Order and acceptance of one's place in society was important in Classical Greece and man's self-realisation was believed to be achieved in relation to political order.

The purpose of education at this time in Greek city-states was to prepare young people to be good citizens:

> Plato saw the unequal distribution of wealth, with its consequent struggle between rich and poor, as well as ignorance as the underlying weaknesses of a democratic government. He advocated a complete change based on an educational system that would train each citizen to accept his place in society and play his appropriate role. (Applebaum, 1992:61)

The city-states were varied in nature, as was consequently the nature of education. Sparta, for example, emphasised the development of 'soldier-citizens' in line with their more militaristic regime whereas education in Athens aimed to produce citizens for peace as well as war, in line with their democratic principles (Encyclopaedia Britannica, 2005). Some of the philosophical study in ancient Greece was undertaken for the sake of learning itself and included subjects such as geometry and astronomy. Others studied with philosophers who taught oratory and rhetoric in preparation for careers in public life. The nature of the education provided was decided by what was considered important in Greek society, which for the elite offspring of the wealthy and influential was schooling in philosophical thinking. What was important for the mass of agricultural workers and their families were the skills required to make the land productive and this was learned within the household environment from extended family members.

In the Hellenistic Greek period, agriculture continued to have a very high status but gradually towns and cities were becoming more commercialised and influential. Craftsmen banded together according to their trades, forming brotherhoods of support. Philosophers, scientists, mathematicians and inventors were the leaders of society and none of these did manual work. Thus an aristocratic bias was maintained against the crafts and artisans continued to be regarded with contempt. Nobles and landowners were expected to provide men to raise armies for the defence of the land against attack, land workers being considered hardy and likely to make good soldiers. However, a constant need for vigilance against attack and the necessity for improved weaponry meant that there was an increasing need for military goods,

and the rate of manufacture in those craft areas that produced them was always increasing. The rise of Stoic philosophy in this period contributed to a more positive view of the value of work:

> The Stoics saw work as a natural human occupation which, unlike the Aristotelians' beliefs, did not exclude one from living a virtuous and good life. Work was compatible with the moral order and part of it. (Applebaum, 1992:91)

The importance of wealth generation and the idealising of work on the land persisted in having the greatest prestige in ancient Rome. Farming was most admired, manual work least and professional trades and craft work were still of low status. The upper classes applied a moral judgement and continued to look down on manufacture and trade. Although the nobility derived benefit from purchase of the products of these activities, it was not the commerce itself but the men who earned their living by engaging in these low status jobs who were the objects of derision. The crafts themselves were not thought of as unimportant, rather that they just had low status. Within the trades there was a further distinction in status between those who worked for themselves and those who were employed by others, since hiring one's services to another was considered degrading. Beneath all was the slave who had no status. Feeding the vast population of Rome was always a difficulty and extensive use was made of slaves who were plentiful in number and provided a useful supply of labour. As urban life developed and expanded, the first 'collegia' of trades were formed as mutual aid and support organisations. From this period, evidence of epitaphs and of craft marks on goods indicates that the craftsmen themselves had a high opinion of their own work. Certainly the public building work carried out by the ancients is impressive and of enduring quality. The construction industry in the Roman Empire was of particular importance to the economy of the time. Brick making assumed an importance which appears to have risen above considerations of status and indeed there are records of royalty and even of women owning or managing brickyards. The transport industry was vital also and grew in importance although it depended hugely upon the muscle power both of humans and animals. The economy of the time was based on agriculture and warfare and, as in earlier Greek times, education was only

available to the wealthy. There were 'grammar' schools with similar aims to Greek schools. Poor children learned at home to take up the same occupations as their fathers and craftsmen passed their skills to apprentices. In Roman Britain, apart from farming, two major occupations were the military and the moulding of pig-iron (Grint, 2005:48), although there would also have been a good number of full-time potters, shopkeepers, smiths, metal and jewellery workers.

2.2.3 Work in Medieval Times

In medieval times, religious ideology, mainly Jewish and Christian, was a major influence on attitudes to work. The God of the Old Testament actually worked, creating the Universe in six days and resting on the seventh. Agriculture was highly valued, probably because it was both necessary and the commonest form of work, but Mosaic Law was supportive of working for a wage, regardless of the form of occupation, in contrast to Greek and Roman notions of an hierarchical status of different kinds of work. Jesus Christ worked as a carpenter before beginning his preaching ministry and references to working are frequently used as analogies in the Gospels in the use of terms such as 'fishers of men'. Christian attitudes of brotherly love were to be applied irrespective of social status or occupation. Early medieval monks worked at every type of craft needed for their survival and accepted the toil as the burden to be carried as a consequence of Original Sin. St Augustine of Hippo (354 - 430) wrote with authority on labour in the church of early Christians. He suggested no hierarchy of work other than that of the labour of preaching God's word, which he placed above all other types of labour. He recognised the joy of agricultural work and expected that all work be motivated by Christian charity. The teachings of St. Paul and St. Augustine strengthened respect for work by proclaiming that idleness was the enemy of the soul and that "he who does not work, neither shall he eat" (2 Thessalonians 3:10). This particular dictum of St Paul was later to be taken up as one of the founding principles of socialism in Lenin's *State and Revolution* (1917).

As monastic life spread across Europe, monks followed St Paul's teachings and were diligent in work. The Rule of St Benedict mapped out the rhythms of monastic life in a pattern of reading, prayer and a command to work. This early form of monasticism generated a respect for work but debate developed over the relative merits of the contemplative and active ways of life.

> Idleness is the enemy of the soul. The brethren, therefore, must be occupied at stated hours in manual labour, and again at other hours in sacred reading. To this end we think that the times for each may be determined in the following manner. From Easter until September the 14th, the brethren shall start work in the morning and from the first hour until about the fourth do the tasks that have to be done. From the fourth hour until about the sixth let them apply themselves to reading. After the sixth hour, having left the table, let them rest on their beds in perfect silence; or if anyone wishes to read by himself, let him read so as not to disturb the others. Let Nones be said early, at the middle of the eighth hour; and let them again do what work has to be done until Vespers. But if the circumstances of the place or their poverty require them to gather the harvest themselves, let them not be discontented; for then are they truly monks when they live by the labour of their hands, like our fathers and the apostles. (Saint Benedict, c. 480 - c.547, cited in Thomas, 1999: 99)

The place of honour given to work by the Cistercian monks brought about a shift in emphasis from work being seen as reparation for Original Sin to work as a means of salvation. By the eleventh century, monks had begun to use machinery such as waterwheels to assist their labour. In the twelfth century, by which time medieval civilisation had advanced to a state of improved material conditions, the monasteries, which had also embraced improved living conditions, were forced to face up to new dilemmas regarding the relationship between spirituality and work. Better standards of living and increased wealth afforded the monasteries political power which led to corruption and the church's insistence on the priority of spirituality. By the twelfth century, work had been changed and arranged by the monasteries into three orders of status among the people - oratores, bellatores and laboratores – those who prayed (priests and monks), those who fought wars (the nobility) and those who laboured (the peasantry). Bullough (1978) suggests that early use of these terms stems in fact

from eleventh century writing and that descriptions of peasant workers as 'laboratores' appears in tenth century Italian literary traditions that in turn draw on ninth century, non-classical terminology for describing the 'cultivators of the fields' (ibid). By the twelfth century however common use of the orders indicates a hierarchical categorisation of groups in society based upon the status of their work.
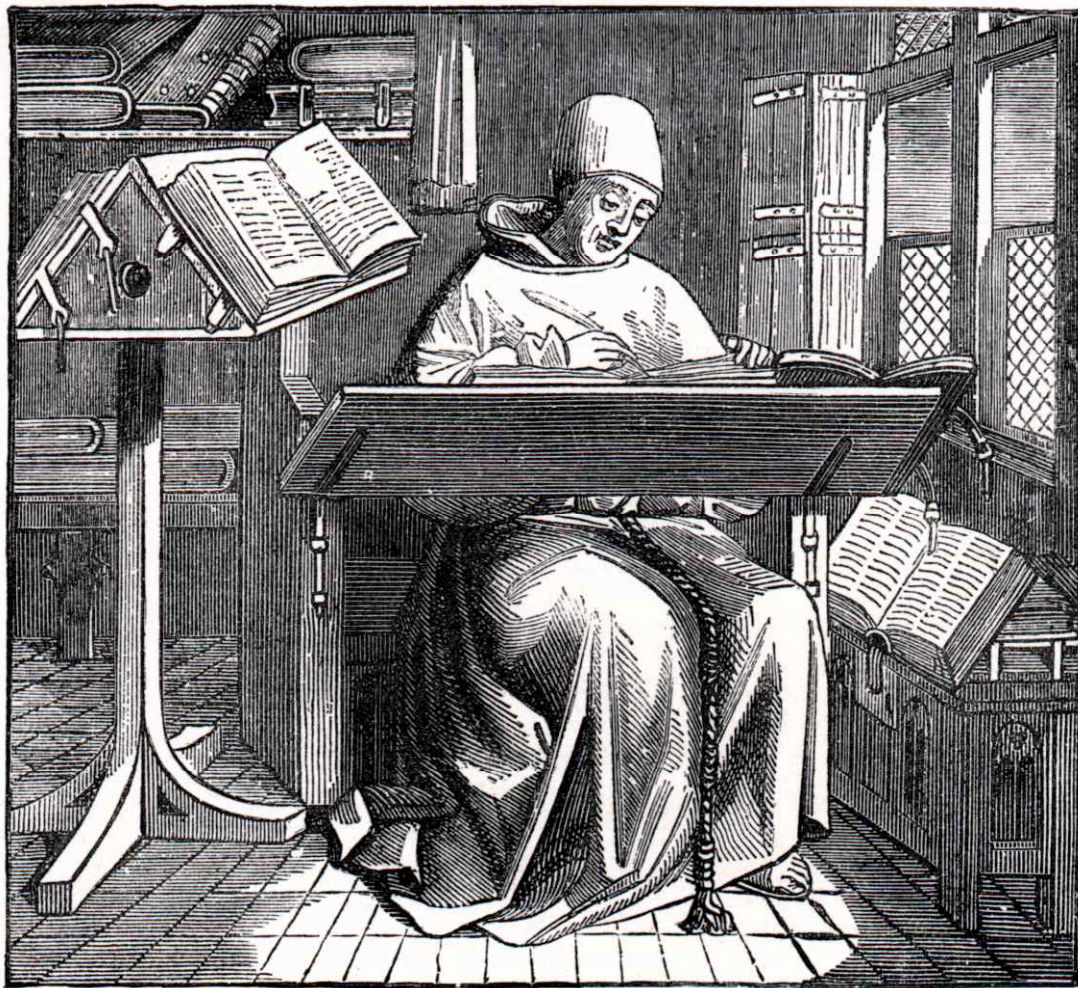
SCRIPTORIUM MONK AT WORK. (From *Lacroix*.)

Figure 2
Monk at Work (From Lacroix) available at:
www.fromoldbooks.org/ Blades-Pentateuch/pages/

Outwith the monasteries, medieval Europe was ruled over by the Emperor Charlemagne for forty-six years. He encouraged education and invited scholars to his court. It was in this time that the seven liberal arts - grammar, rhetoric, dialectic, arithmetic, geometry, astronomy and music - were set up. In this period the population was clustered in communities of settled villages. Communication was scant and, like trade, was unreliable, so that communities could only depend on themselves for most of their needs. The nature of the peasants' work was dictated by the fact that everything was done by hand or by using hand tools and work time was loosely calculated according to day and night and the seasonal cycles of agricultural work. The picture that we have of peasants of this time is that of the ignorant and illiterate country bumpkin which offsets that of the educated elite. A derisory attitude towards the work of peasants of the time set the general view of work in the middle ages. Grint (2005) however suggests that the peasants in feudal Britain, although marginalised by landowners onto the less productive land, were nevertheless aware of the value of their labour in a time of regular catastrophe such as fluctuating birth rates and decimation by plagues. The later development of town life, with its greater variety of skilled work, altered these perspectives and the status of handcrafts generally.

The known world from the eleventh century had continued to change and to become more complex. Cathedral schools became popular in towns, taking over in importance from monastic schools. As well as the ongoing influence of migration, the Crusades were a factor in medieval Europe for two centuries, from the ninth to the eleventh, bringing about a more outward view, accompanied by increased activity and productivity, which was significant for developments in attitudes to work that changed as perceptions of the world broadened. A consequence and heritage of the crusades was intercultural contacts:

> Artistic achievements, especially in the decorative arts, as well as skill in working metals, textiles, ceramics, and leather can be shown to have been adopted from the Islamic world. . . . . In military technology, for example, encounter with the foreign warriors led to important innovations ranging from the introduction of armoured horsemen to changes in siege technology and castle construction. (Jaspert, 2003:166)

Town dwellers were grouping together in allegiance to their communities, and, in many of the principal European cities, groups were forming guilds, associations created by oath, in the different trades (see below). Guilds of merchants gained importance through increased activity in trade and commerce. The guilds arranged the training of their own master craftsmen through an apprenticeship system, at the end of which time, a masterpiece had to be produced to demonstrate the required high level of ability. Increased trade and commerce led to more money and accumulation of capital, which was then used for "war, politics, cathedral building, patronage of the arts, charity and support for the growing state administrations" (Applebaum, 1992:237). As the power relationship shifted from feudal lord and peasants to the state and workers and economic connections became more sophisticated the feudal system began to give way to what could be recognised as early forms of capitalism (Grint, 2005:48).

In the fourteenth century, war, disease and famine caused huge reductions in the population and the resulting high cost of labour helped to encourage technological innovations. Among these were new methods of printing which affected the availability of books and had a consequent impact on literacy, culture and advances in education. The heavy plough improved both ploughing and field drainage. A horse harness was invented and horseshoes developed to protect hooves. More efficient watermills also helped to advance farming methods. Peasants' days were interspersed with a number of religious feast days and celebrations, but by the end of the Middle Ages, the church had become less influential in secular affairs and nation states emerged in Europe. During this time some trades and professions became marked as unclean and came to be treated with disrespect. A blood taboo affected butchers, executioners, surgeons, barbers, apothecaries and soldiers. Fullers and dyers were considered unclean and cooks and laundrymen were treated with contempt. Merchants were condemned because of a taboo on money. Feudal society itself came to be classified in what were originally the monastically defined orders; oratores, bellatores and laboratores already described. The distinctions in the orders did not include any notion of equality and indeed the workers were at the lowest rung of society but the concept of the

orders did make clear a sense of the necessity of work, recognised the interdependence of the orders and emphasised the importance of work in medieval society (Applebaum, 1992:247). Although those who worked were at the bottom of the scale, they were recognised for their contribution to the social order.

In the growing towns and cities, people who shared the same trade or profession had been coming together for mutual cooperation and protection and organising themselves into guilds. These guilds looked after the interests of their own trade and established monopolies to prevent outsiders from taking business away from members. Guilds participated in town government both for civic improvement and their own prestige and became integral to town economies and administrations. The guilds controlled membership and used an apprenticeship system to educate young people and provide new blood. The training system of apprenticeships has proved to be one of the most enduring forms of training and education. Parents or guardians placed young men with masters who were approved guild members. Contracts were exchanged and the apprentices had to promise industry and total loyalty to the one master, never revealing the secrets of the trade. At the end of indentureship, the apprentice became a journeyman and sometimes eventually a master, although this became increasingly difficult to achieve. The guild system eventually collapsed as competition, and the dissatisfaction of journeymen prevented from becoming masters, led to rioting. The pressures for expansion in the sixteenth and seventeenth centuries and the industrialisation of the eighteenth century gradually made the guilds obsolete.

The building trade was important everywhere in Europe in the middle ages. Masons were seen as leaders, and masonry as an occupation was held in high esteem. On large scale building projects, great numbers of masons were gathered together and lodges were built for them as workshops, where they could meet together and rest. From this the Masonic Lodge movement developed:

As men sharing a lodge held discussions about their pay, their grievances and life in general, they became conscious of some solidarity. They also regarded it as disloyal for a man to reveal to the outside what was discussed in the lodge and eventually drew up regulations and certain customs to promote piety and good fellowship among its members. Others - mainly intellectuals, scientifically inclined gentlemen and architects - came to participate in the discussions of the lodges. Secret signs were developed to identify true participants from pretenders, and eventually, the Mason lodge movement developed. (Applebaum, 1992: 281)

The term Freemason comes from the type of stone, freestone, worked by some masons who did carving. It was difficult to found guilds among the masons generally as they were always on the move, but the freemasons' movement grew in popularity and solidarity.

The lot of women in the middle ages varied from century to century and depended also on social class. There was a household economy which women controlled, but they were regarded as their husband's property and therefore were little more than slaves or part of the household inventory. Some women entered the cloth and clothing industry and some were counted on to help with the harvest. It was considered proper for wives to take on the work of deceased husbands or of those who were away, perhaps fighting in the crusades. In towns, women, either wives or daughters, could assist in the family business but this became less accepted as guilds became more politically involved in town government and politics. Middle and upper class women, some of whom managed very large households employing many staff, had to be excellent managers of large houses and estates.

The concept of work then in the middle ages was divided between simple agricultural life and increasingly complex town life. More than ninety percent of medieval people lived in the country in small villages where agriculture was the basic occupation. Rights and duties were important and communal work was necessary for survival:

Work and life were of one piece, and, when there were no raids and wars, life was peaceful and cyclical, based on yearly rhythms of work in tune with the seasons. (Applebaum, 1992: 310)

Those who worked in towns had an idealistic attitude to work through their experience with craft guilds. The craft or trade was thought of as providing purpose and solidarity, and represented an intermediate form of organisation between that of family and state.

2.2.4 Work in the Modern World

> The protestant attitude to work is the beginning of the modern concept of work, and it is convenient to locate this great change with the ideas of Luther. This new attitude towards work has also been merged with the notion that Protestantism and its perspectives on work were also the ideological precursors for capitalism and its work ethic. (Applebaum, 1992: 321)

Throughout the Middle Ages, the practices and teachings of the Catholic Church had the strongest influence on the status of work in society. Martin Luther however considered that the monastic way of life had become selfish and detached from the wider needs of people in general. He regarded work, and attitudes to different kinds of work, as underlying causes of differing social classes. He condemned commercial activity as not worthy of being described as work and disparaged profit since work was intended to satisfy day-to-day needs and nothing more. This view of the nature and purposes of work was not too dissimilar from Catholic views but in other aspects he differed radically. Luther saw no difference in status between spiritual and secular work. He believed that all work should be carried out to the best of the worker's ability and discarded the Church's notions of different status and hierarchical orders, arguing that all work provides for the common good.

Luther preached a message of acceptance coupled with action, which he referred to as 'calling'. Such a calling required all to work at whatever God summoned them to do. It was a message of individualism and at the same time a way of upholding the social order. He emphasised the enjoyable creativity that can be associated with work as opposed to the catholic view of work as a penalty for original sin. It was not his intention to level the social orders but to give honour to honest work of all kinds. The work of peasants was particularly honourable because of its distance from the taint of mercenary objectives.

These first challenges to the Catholic Church's model of work were soon followed by the teachings of Calvinism. John Calvin brought a new attitude to labour. Every man was to work, even those already wealthy, but not through a craving for material rewards, but rather in a sense of religious duty. Calvin urged workers to strive to better themselves and thus removed from work the meek acceptance of one's station in life. He thus saw profits arising from trade or finance as on a par with earnings from any work. Calvin preached predestination, interpreting God's word to mean that only a few had been chosen for a heavenly paradise and that human effort was irrelevant to this choice. He claimed that the true reason for man's existence was for the glory of God, not through prayer, but through action, namely work. This message gives an early indication of the onset of a cult of work, where work is undertaken for its own sake and that of the promotion of thriftiness and wealth accumulation. Puritanism went even further than Calvinism in teaching that the greatest possible gain should be derived from work and that success in enterprise indicated God's pleasure. In fact acceptance of the idea of predestination brought about a view that God helps those who help themselves and thus that Calvinists can work at creating their own salvation, or at least a conviction that their salvation can be assured. Max Weber (1930) later wrote about the Protestant work ethic in relation to the notion of *calling* and to the spirit of capitalism. (see Chapter 3)

England during the seventeenth century was mainly rural with market centres in towns and political administration centred in the cities. Mining was developing and spreading with related work in metallurgy, but wool and the production of cloth were still the most important industries of the time. Three commentators whose thinking contributed to the developing concept of work in England at this time are Francis Bacon (1561-1626), Thomas Hobbes (1588-1679) and John Locke (1632-1704). Bacon wrote about the development of science and technology and was anxious to encourage man's control over nature through reorganising the sciences. He lived at the time of the Renaissance, which influenced him to see man as a creator, thirsting for knowledge and celebrating science, philosophy, literature and the visual arts. Bacon, as a Renaissance thinker, was interested in improving man's lot by

increasing scientific and technical knowledge. He valued the manual means of this development above the medieval legacy of scholarly thinking and rated highly the contribution of skilled master craftsmen. Hobbes wrote on aspects of social and natural life, basing his materialist and humanist philosophy on the concept of human nature. His views, although not explicitly directed at work, are relevant to the role and status of the worker in society. Man as artificer was assuming a role previously only ascribed to God. Everyone should be compelled to work, but Hobbes was ahead of his time in calling for the state to provide for those who were physically unable to work. Locke was the first classical political theorist to place a strong emphasis on the value of labour. Labour was the basis of property, and property, and its protection, was the basis of government. Property resulted from the body's labour and the hands' work, and, carried out in a God-like fashion, allowed individuals to appropriate materials from nature and be perceived as a moral activity. Taking more than was needed would result in waste and deny its benefits to others, but accumulated money or property could not spoil in the same way and could therefore be legitimately amassed. Viewing work in this way, as an obligation of natural law, compelled everyone to work in order to have the right to eat.

Elsewhere in Europe, and in the developing colonies, philosophers and writers were also setting forth ideas which would have an impact on the development of the concept of work. Three estates of France emerged from Charles Loyseau's *Treatise on Orders*, which was published in 1610, and that built on the medieval orders. The Church was the first estate, possessing most of the land and the power to raise taxes. The second estate was the nobility, which was less well organised than the clergy but still powerful. The third estate was that of the majority of the population, the ordinary people who were the workers. This last group was accorded no status or dignity in the ranking of the population. Denis Diderot (1713-1784) was a writer on philosophy and science who advocated unity between the mind and the work of the hands in using machinery to change attitudes to work. He opposed the guild system which he thought to be too traditional and detrimental to thinking that could expand the development of manufacturing output. The breakdown of the guilds and the build up of

manufacturing, through advancing technology and more division of labour, did come about in France in the aftermath of the French Revolution. Voltaire (1694-1778) believed that progress could only come about as a result of human effort. His writing had a profound affect on the development of civilisation in Europe. He developed ideas of a calling arising from Calvinist teaching, taking the part of the workers in political dealings and supporting them in struggles for housing and land. Voltaire's message on work is that it is the best solution to the enigma of life. (Applebaum, 1992: 383) Jean-Jacques Rousseau (1712-1778) had experience of workshop life, being apprenticed to an engraver as a young boy. He was treated badly by his master, but developed respect for the artisan way of life, perhaps through the influence of his father who was a watchmaker, and a relative who was a Calvinist minister. Rousseau attributed the happiness of the small artisan to his usefulness to society, his closeness to nature and his ability to derive a livelihood from his craft. While Diderot and Voltaire promoted the arts, science and rational knowledge as the bases for a new social order, Rousseau believed in the superiority of spiritual and moral values in upholding political and social order.

In the same period, Scotland's Adam Smith (1723-1790) was formulating what can arguably be described as the first modern theory of work. Adam Smith's book *An Inquiry into the Nature and Causes of the Wealth of Nations,* 1776, is still regarded as a landmark in economic theory. Central to his theories was the ideal that work can provide everyone with all that they may require. He explored the nature and character of work, arriving at a labour theory of value, distinguishing between useful work and non-useful work. Smith predicted increased productivity through the use of machinery, coupled with, a key aspect of his theories, the division of labour. The practice of the division of labour hugely affected the nature of work because it reduced work to simple, repetitive operations, which in turn led to a reduced requirement for the mental application of the workers. Much of Smith's writing is still influential in the present day and the impact of his ideas can be readily recognised. He believed that the prospect of success affects attitudes to work and that exchange and reciprocal dealing are basic to every society. There follows a list of Smith's stated views on

the subject of work:

1. Man needs to subsist.

2. Man needs to rely on others for his own self preservation.

3. A natural division of labour arises due to man's reliance on others.

4. There is a natural propensity for man to truck, barter and exchange.

5. A standard of value is required for exchange to take place.

6. Labour or work measured in time is the standard measure. (Smith calls it *toil* and *trouble,* with labour embodied in one's own product. To acquire a product saves one the toil and trouble of producing it oneself.)

7. Man's character is determined by his work function.

8. The division of labour in industry leads to overspecialisation and the monotony of work.

9. The labour theory of value raises the importance of recognition of work.

10. Smith advocates education as a means of increasing work satisfaction.

11. Smith advocates high wages to provide increased motivation for work.

12. Social exchange, and independence, and the propensity to truck and barter are natural laws that lead to cultural habits that operate as an invisible hand beyond the awareness of individuals, and which creates social inclusion and lawful behaviour to society.
    (see Smith, 1991)

Although Adam Smith was the foremost theorist of free-market society and classical economics, he was not an apologist for capitalism. He postulated a labour theory of value but also recognised that severe division of labour could bring about a malaise in work and a state of monotony and dissatisfaction with small, disconnected work actions. He saw these difficulties as arising in the developing factory system and developed a theory of a free market with the workplace playing an important role within its political and economic system. Adam Smith was a key part of the Scottish Enlightenment group of academics who believed in progress and the importance of science for the development of society. The prestigious *Encyclopaedia Britannica* was produced at this time and displayed many of the Scottish Enlightenment ideas to the world.

Benjamin Franklin (1706-1790) was a product of eighteenth century Enlightenment who is hailed as the most distinguished American of his time (Masur, 2003: vii). Through his writings, political life and craftsmanship as a printer, he demonstrated a blend of intellectual and manual labour and was a consummate philosopher and advocate of the work ethic. His Calvinistic approach to life was most likely due to the influence of his Puritan father. He wrote and printed *Poor Richard's Almanac* as a guide to his workers and followers, and each edition contained bits of philosophy and teachings on the subject of a work ethic. He recommended a spirit of thrift and work as the road to success in business enterprise. His theory of value based on labour underpinned his view of work and labour being the basis of the nation's wealth. Franklin starts his analysis of the labour theory of values by claiming that barter is inefficient as a means of exchange and that money is the better facilitator.

2.2.5 Capitalism, Socialism and Work Ethic

Capitalism, Socialism and a work ethic are the dominant features of work in the western world in the nineteenth century. The cotton mills of England set the pace of the industrial revolution. The textile industry developed tools and machinery which established new patterns of work and brought about the introduction of large scale factories that were to be of huge significance in the history of society. The spinning jenny and the steam engine had both been on the scene since 1764 and the development of steam power, and the use of coal as its fuel, brought to industry a strength far beyond that of human muscle power and allowed great leaps of progress in manufacturing output. More sections of society were able to generate wealth, although not the huge mass of poor workers and paupers, but enough for retail to become more sophisticated in response to the beginnings of consumerism through which the economy developed an aspect of demand as well as one of supply. In America, the working class was also established in the textile industry of New England, but workers in America had been composed mostly of immigrants, indentured workers and slaves. The railroads employed large numbers of workers, but in the 1870s severe depression and the great strike temporarily halted industrial development. Trade unions grew rapidly in America after this time although American workers were less politically aware than those in England. France

was less industrially developed than England or America at the start of the nineteenth century. The peasants had become entrenched after the revolution and there had been little progress, even in agricultural methods. The French working class, however, was politically mature, with work and industry being seen as the bases for social order. There were several workers' uprisings to demand rights, but the rate of development of industrial technology was relatively slow. Although backward and feudal at the beginning of the nineteenth century, Germany had become a dominant industrial power by its close with large numbers of German workers employed in coal mining to fuel the rise in industry. The value of education for workers was recognised in Germany long before any other country and the rate of industrial development achieved appeared to demonstrate the value of that ideal.

Some thinkers emerged at the end of the eighteenth and into the nineteenth century who believed that a better world could be created through the use of reason to discover laws for a human society. These were the Utopian Socialists and included social commentators such as Charles Fourier (1772-1827), Saint-Simon (1760-1825) and Robert Owen (1771-1858). They believed that if society's view of work could be changed, making it more meaningful, then work itself could become a liberating force which could make life more purposeful and significant for workers and therefore the world a better place for all. Fourier advocated communal associations or co-operatives and believed that effective industrialisation should be able to bring about relief from scarcity and want, leading to more choice and variety in the work to be done. Such a fair and shared approach, he believed, should bring about increased productivity. Saint-Simon wanted government protection for workers to prevent them being unfairly treated by idlers who would take advantage of the efforts of others. He believed that it was every individual's duty to work and that the order and understanding, which was developing in the natural sciences, could also be achieved in the sphere of social sciences. There follows a summary of the issues presented by Saint-Simon in his *Eight Letters to Americans*:

1. The production of useful things is the only reasonable and positive aim that political
   societies can set themselves. Respect for production and producers is infinitely more

fruitful than respect for poverty and property owners.

2. Government always damages industry when it meddles in its affairs, even when it tries to encourage it.

3. As the producers of useful things are the only useful men in society, they alone should come together to regulate its development.

4. Wars, whatever their object, are injurious to the human race.

5. Monopoly can only be acquired and maintained by force and is bound to diminish the total production by the very people who enjoy the monopoly.

6. Morals will improve as industry develops. Education should strengthen those ideas which will increase each individual's productivity.

7. The entire human race shares one aim and has common interests. Therefore, in his social relations every man should consider himself to be engaged in a company of workers.

   (see Applebaum, 1992)

Saint-Simon wanted every potential worker to be assured of employment and argued that the government, by reducing its military expenditure, could achieve this, although he never indicated any plan for how it could be put into practice.

Robert Owen was born in England, but is best known for his eventual achievements as a partner and later owner of the New Lanark Mills in Scotland. Owen had many idealistic plans, none of which reached total fruition, but the sum of Owen's contributions to social reform and humane working conditions for the working class is none the less impressive. Like all Utopian Socialists, he wanted to make the world a better place, but Owen did make a significant practical contribution to social conditions for the working class. He built a community at New Lanark, based on an improved working environment and support for families and society, including schools for all young people, which he used to demonstrate that his ideas could work in practice. The mills became a magnet for interested visitors from far and wide and a model for similar social experiments. He organised the Grand National Union in England, which supported the English working class movement, and, although it did not achieve all of its objectives, was the precursor of industrial unions. Owen was a pioneer

of the co-operative movement for fairer consumer purchasing arrangements for working class families. He also supported the Factory Act of 1819, which again didn't achieve all that Owen wanted, but went some way to encouraging factory reform. By the end of 1832, the working class was becoming increasingly dissatisfied with the lack of progress of reform. The middle classes had been enfranchised but the workers remained without a voice. Political means of obtaining the vote and any measure of social status had failed and the workers turned to Trade Unionism and Cooperatives as a means to seek social emancipation. Few men of the nineteenth century achieved as much for work and workers as Robert Owen through his efforts to replace the notion of individual self-interest with principles of union and co-operation.

Among influential commentators on the nature of work, perhaps the best known voice is that of Karl Marx (1818-1883). In his writings he identified workers' relationships as producers as the principal connection uniting society, and from this basis his views of work itself developed. He studied the work process and defined three fundamental elements of work. The first is labour power, as in man's personal activity in work, the second the materials which are the subject of that work and thirdly the tools which are the instruments of the work. Marx distinguished between work and labour where work was the qualitative feature of the process and labour was the value-creating and quantitative characteristic (Applebaum, 1992: 437) (see Chapter 3)

The collection of large numbers of workers in the one place, making the same product for one entrepreneur, was to Marx the starting point of capitalist production. He commented on the resulting division of labour and lack of variety caused by workers each having to concentrate on one small part of a process. The difference in level of worker control between operating a tool to assist in a piece of work and operating a part of a complex piece of machinery to contribute one aspect to a large scale production was seen by Marx as depersonalising work. Influenced by Hegelian philosophy (Singer, 1980:18), Marx outlined what he described as the alienation of labour, a phenomenon which he claimed derived from the abstraction of work

practices to the point of becoming solely the means of gaining a wage. Most workers no longer laboured to produce goods to satisfy personal needs; rather they worked to earn a wage to allow the purchase of goods, which are the fruits of someone else's labour. This disconnection of the labour process from the satisfying of basic needs is what Marx sees as alienating in the nature of manufacturing work. In his vision of an ideal society, work was to be seen as its own reward with life finding its meaning in work. Marx blamed faults in the organisation of work in a class society for engendering antagonistic relations among workers resulting in them having to be coerced to comply.

Marx's work, influenced by the writings of Hegel, contained the following elementary questions: What is the significance of work for mankind and what central place does work have in the organisation of society? What are the implications for the nature of work in the continued mechanisation of the workplace and the continued subdivision and specialisation of tasks as a result of the industrialisation and urbanisation of European and American culture? What is the relationship between work and leisure? Is the goal of society to reduce the hours of work and increase the hours of leisure so as to permit the majority of its citizens to seek fulfilment in leisure rather than work? Or can the nature of work itself be transformed so as to permit human beings to seek joy in work? (Applebaum, 1992: 447) (see Chapter 3 for more detail on Marx and work)

Some, like Marx, wanted to re-organise society, while others sought a solution in reform along ethical and moral lines. The German culture historian Wilhelm Heinrich Riehl (1823-1897) believed that his country's work ethic arose from its folk history and although, like Marx, he talked about alienation, his suggested solution was to reform through promoting social harmony. Riehl held intellectual work in high esteem, but although he wished to restore joy and satisfaction in work to all, he thought that the impersonal nature of manual work would always be a source of alienation. Thomas Carlyle (1795-1881) believed all work to be noble and inspired many with a belief in the dignity of work.

Figure 3: Urban work: ABC Washing Machine Assembly Line in East Peoria.CA, 1935.
Downloaded from:

2.2.6 Perspectives on Work in the Twentieth Century

Life in the twentieth century was subject to change at a faster rate than ever before. The pace of developments and the possibility of economic disasters, such as the Depression in the US in the 1930s, highlighted the vulnerability of society. Governments were expected to organise society and to provide for those whose lives could be seriously affected by the ups and downs of capitalism. Factory work was characteristic of capitalist societies and an example of the organisation of industrial economies (Deem, 1985). Industrial tensions arose between owners and managers who wished to maintain control of production in order to maximise profitability but who also needed to motivate the workforce to put effort into their output. The study of strategies for enhancing production efficiency, led to theories of management which brought about major shifts in industrial working patterns. Scientific Management, which was the brainchild of Frederick W Taylor, was to remove most remaining traces of emotional involvement or personal satisfaction in work. Factory work was analysed and subdivided into individual tasks that could be performed by workers with any or no skill and led to the overall de-skilling of factory work. Managers became obsessed with increased production and efficiency at the lowest possible cost. The number of managerial and supervisory roles increased with the need to oversee the workers' rates of input. The social implications of this were to emphasise and strengthen class divisions within work processes. Taylorism had its origins in manufacturing industry, but its ideas spread to management in almost every type of working endeavour. Elton Mayo, however, found that workers still attempted to hold on to what emotional involvement they could, by regulating their own outputs, despite the impersonal demands of the production line. The motor manufacturer, Henry Ford, is credited with setting up the modern model of mass production which became known as Fordism. He introduced moving assembly lines to his plant in Michigan in 1913-14. Ford applied the techniques of scientific management to the great efficiency benefit of his car plants, but at the cost of huge stress to the production line workers. The new way of organising the speed and flow of production further removed skilled labourers from their craft based work, where they had some control over working conditions, to regimes of industrial division of labour. There was large-scale mechanisation and coordination of the processes.

Less skilled labour could do this new work which was mostly machine operation within highly specified and narrowly defined tasks. Ford, however, believed that workers would be able and willing to adapt in order to earn the high financial rewards that he offered to every member of the production line. This in turn boosted workers' buying power and thus the consumer demand for their company's products. Issues of supply and demand and the generation of consumerism were influential in the development of manufacturing industry. Views expressed by Italian philosopher and social critic Adriano Tilgher (1887-1941), indicate why economics plays such a leading role in modern society:

> In today's world, demand does not create supply. Instead, supply, frantic to dispose of itself, rushes out to find demand, to engender it, command it, insinuate it, and create it through all means of advertising, both subtle and otherwise. Progress is measured by the amount of goods and services produced and consumed. When it increases that is considered to be progress. The heroes of the modern world are the entrepreneurs, the captains of industry, and the managers of wealth, whether in business or government. (Tilgher, quoted in Applebaum, 1992: 461)

Following on from Mayo's more humane approach to management, studies in motivation and self-esteem began to influence the organisation and management of industry leading to the era of Human Relations Management that subsequently wrested influence away from Scientific Management. Education systems, particularly in the United States, developed to match the needs of the production systems that provided mass employment with industrial models of schooling. (Tucker in OECD, 1996:11)

The philosopher and social commentator Hannah Arendt (1906-1975) examined the place of work in the human condition through identification of three fundamental human activities: labour, work and action (see Chapter 3). Labour provides products for consumption, for man's bodily needs, work provides what is to be used, the results of man's craftsmanship, and action is what shows man's uniqueness by revealing who he is. The Catholic Church made comment on human work through the papal encyclical *Laborem Exercens* (see Chapter 10). In this work, Pope John Paul II sought to apply principles of social justice to the lot of working man and in so doing criticised both socialist collectivism and capitalist individualism.

Like Marx, he complained of man's alienation from the fruits of his labour and lack of ownership and access to policy making in industrialised society, but he extended this criticism by claiming that working practices were robbing man of dignity and honour. Since work is part of man's self-fulfillment, the ways in which it is used against man, for example through exploitation or forced labour, are evil. He criticised consumerism which over-stresses material satisfaction and called for new thinking on work to emphasise that man is always more important than what his work produces.

2.2.7 The Impact of Technology

Undoubtedly a major factor for change in the working conditions of the later twentieth century has been the rapid advance in science and technology. Applebaum differentiates between science and technology thus:

> Science leads to explanation and application. Pure science has as its aim the understanding of nature. Applied science has as its aim the control of nature. Technology is a further step in applied science, seeking, by means of improved instruments, to apply the laws of science. Historically, the achievement of technology can proceed without the benefit of science. (Applebaum, 1992: 513)

The impact of developing technology has been significant. Technological advances such as the steam engine led to the loss of traditional handcrafts. The insurance industry developed as advances in technology produced new risks. Robotics has produced technology which can relieve people of many forms of dirty or dangerous work and be more efficient and less demanding at the same time. Information technology is increasing exponentially in sophistication and importance in most aspects of modern society. The end of the twentieth century was marked by a need to control and reform technology, both to prevent its dehumanising effect on many types of work and to attempt to realise the leisure and prosperity which it promised. Technology has been transforming work by both creating and eliminating jobs and forcing the rethinking of many traditional attitudes to work. Some industries however have seen a deepening of polarisation of jobs rather than the reduction of differentiation which some had been expecting.

This exploration of the historical development of our present understanding of the concept of work unearths a trail of development from labouring to provide the necessary requirements of living to the present day socially constructed, status laden imperative of having a job along with that of earning a living. Education, traditionally the preserve of early religious and political scholars and the families of wealthy rulers and landowners, gradually became available to greater numbers of the populace until the modern availability of education for all, at least in developed nations. As the nature of work, allied to increasing consumerism, became more complex with increasing industrialisation, and early forms of international economic exchange, the nature of education for the masses also changed. Parents' influence on the employment choices of young people gave way to the supervisory influence of the organisers of capitalism in industry (Corson, 1993: 12). The history of the concept of work is unfolding further in the developments brought about by globalising influences and the emergence of knowledge capitalism making the knowledge economy the fastest growing area of work at the beginning of the twenty first century (see Chapters 6 and 7).

The nature of education, and of work related education in particular, has evolved albeit slowly, in response to the political and sociological requirements of economies and developing societies. This has been evident in Scotland as in the wider history of work traced above. Scotland has a long tradition of providing formal schooling, mainly due to religious convictions, and a desire to make the teachings of the Bible accessible to all. Historically there have been three main governmental differences between Scotland and the rest of the United Kingdom. These are:

> . . . the established church, Presbyterian in Scotland, . . . the legal system, the institutions and basis for which are quite distinctive, . . . and the education system which is widely held to be another important 'badge' of Scottish identity. (Friel & Fagan, 1998: 17)

There is some evidence of a number of pre-reformation schools (Durkan, 1959), and there was always less class distinction in the early history of Scottish education where the poor but able young lad had access to education along with the sons of his employer the landowner and

indeed it was considered that able young men of any situation should be enabled to continue their education for the common good. Despite these differences in the Scottish democratic educational tradition and in the authority for management of education, during the second half of the twentieth century, Scottish education has been influenced by the same political imperatives as experienced in other parts of the United Kingdom. Many Conservative education policies adopted in England and Wales soon appeared in Scotland although often in a less severe form, having been mediated and moderated by the Scottish policy community, reflecting broadly different political persuasions of Scottish voters at the time. Support for the neo-liberal policies of the Conservative government, relating, for example, to parental consumer choice, school boards or self-governing status, was less marked in Scotland suggesting discomfort with 'New Right' ideology (Humes, 1995). Initiatives relating education and work such as The Technical and Vocational Educational Initiative (TVEI) (see Chapter 4) and Enterprise Education (see Chapter 8) were introduced to strengthen links between business and industry but were adapted to make them more acceptable to Scottish parents and educators. Curriculum initiatives have echoed these differences in approach and since the establishment of a devolved parliament in Scotland in 1999, the differences have grown as new policies echo a raised consciousness of national identity. The impact of education policy on the relationship between education and work is being reworked and is currently playing out in new curricula that are being developed.

The historical tracks of this chapter that serve to highlight some milestones in the development of a concept of work begin to address questions 4 and 5 of those posed in chapter 1. Important influences and events that have shaped the nature of work and in turn the development of work related aspects of education will now be taken up in chapters 3, 4 and 5, through industrial and into post-industrial economies. The pace of change in society, fuelled by ever more rapid advances in technology, has been increasing at an exponential rate. The more contemporary influences of globalisation, increasing emphases on the acquisition and applications of knowledge and new ways of conceptualising social relationships that are sometimes described as post-modern are picked up from the end of chapter 5 and into

chapters 6 and 7. A huge challenge for educators, having developed their understanding of the historical genealogy of work, is to be able to move beyond the concept of work that has developed through the complexities explored in this chapter and to adjust to new conceptions of both work and of education's connection to it. It may be that some of the questions posed in chapter one arise from these twin challenges. On the one hand we are moving to new configurations of work, new concepts of what it is now about and questions about how new generations emerging from their school education will align themselves with evolving economic, social and philosophical influences on work. On the other hand we have education requiring to be re-examined in the light of these same influences as educators struggle to come to terms with a shift in focus from it being the supporter and reproducer of workers, to a new position of being in itself the crucial product that now drives the nature of work. It must move from reactive to proactive as will be seen in chapters 6 and 7.

Figure 4 - Breaking pig bars. Coltness Iron Works in 1900 - 1910. Photograph courtesy of Motherwell Heritage Centre.

Chapter 3 - Education and Work in the Industrial Economy

3.1 Conceptualising Industrial Society

Tracing the development of the relationship of work to society, through an historical lens, highlights that there are significant shifts in the perspective of work at several points in time, at least within Western cultures. We have seen that changes in agricultural organisation are tied to shifts in the needs of enlarging and increasingly mobile populations. Preparing for war, whether for purposes of defence or acquisition, encouraged the development of technologies which brought groups of crafts together. The rise of large cities as centres of population further altered dispositions towards work. There seems little doubt that religious convictions have had a huge impact on the development of the concept of work and contemporary technological developments are bringing more complex and diverse aspects to relationships between society and work. Notions of 'progress' in the eighteenth century had been vague until it came to be linked with the advancement of science and the term 'industrialisation' came into use through the writing of Saint-Simon. (Kumar, 1978:46) By the nineteenth century, the pace of scientific progress and industrialisation had accelerated enormously. Industrial societies, brought about by the emergence of machine production based on resources such as steam power or electricity, were very different to earlier agrarian or mercantile social orders. Large scale gathering of populations in industrial centres greatly enlarged towns and cities and influenced the formation of nation-states where national governments had power over many aspects of the lives of citizens. A different kind of class system emerged in industrial society as citizens became divided into a class of industrialists or capitalists who owned the means of production and a working class or 'proletariat' as Karl Marx described them, who earned a living in industrial society by selling their labour for a wage. Key and opposing factors in social organisation and activity in the nineteenth and early twentieth centuries, when industrialisation was booming and influencing every sphere of human activity, are those of Capitalism and Socialism. This chapter traces important features of industrial society, examining the writing of influential contributors to understanding about

work in the industrial age and identifying significant factors that stimulated developments in school education which burgeoned in response to the demands of industrial society.

Figure 5: Rural work: Farmer planting tomatoes with his two girls, Crawford Co., 1940. Downloaded from:
http://images.google.co.uk/imgres?imgurl=http://museum.state.il.us/exhibits/athome/1920/side by/u-work.jpg&imgrefurl (last accessed 19/12/07)

3.2 Historically Important Contributors to Understanding the Concept of Work

Many writers through the ages, in expounding their philosophical, sociological or political theories have either made explicit reference to the state of work and workers, or their thoughts have had implicit impact on society's construction of the concept of work. The work of three such writers is examined in this chapter, that of Karl Marx (1818-1883), Max Weber (1864-1920) and Hannah Arendt (1906-1975). I have chosen these three from the range of writers that I have consulted in relation to the history and thinking of their time because I believe that each contributed in different ways to altered understandings of work in society and constructed their theoretical frameworks during the heyday of Industrial Society. The impact of Karl Marx's perspectives on sociological analyses has been immense. Whole systems of social organisation have grown up based upon and operated under Marxist principles. He focussed on the impact on economic transformation of the developments that he witnessed and abhorred in capitalist societies. Max Weber's impact has been of a different sort. He sought to understand why Marxist theory had such a widespread appeal but also to comprehend why individuals should embrace the pursuit of capitalist ideals so readily. His impact has been in widening understanding of the sociological impacts of both socialism and capitalism and in seeking impulses other than economic advancement to explain their development. Hannah Arendt was a political and social commentator who formulated her view of human activity as 'labour, work and action'. She looked at a bigger picture of human existence and relationships with work, commenting on Marx's and Weber's writings from her early and mid-century context and perspective. Where Marx wanted to change society and Weber wanted to understand better how it operated, Arendt sought to clarify the human relationship with work. A summary of the main points of these writers' work is outlined below.

3.2.1 Marx: Work as Labour

"Marx changed the world because he changed its understanding of work." (Anthony, 1977)

Karl Marx was born in the German Rhienland in 1818. As a young man he began developing his philosophical position which was a broad approach encompassing politics, economics and

the historical processes which influence the world. He began to refer to himself as a communist, which according to Singer (1980) was "nothing very unusual in those days in Paris." He became a friend and close associate of Friedrich Engels and together in 1848 they produced *The Communist Manifesto,* in the same year as the French Revolution. This was a sociological masterpiece of the writing of propaganda and was the first clearly set out exposition of Marx's ideas. It is said that after this time, he ceased to be a philosopher and became instead a sociologist and importantly an economist (Aron, 1965). Marx's work presented analysis and interpretation of capitalist society as it functioned in his time, as it was structured and as it would, in his view, necessarily evolve. He saw men's role as producers as the unifying force in society and based his views on work upon this notion. He defined three elementary factors of work: the personal activity of work itself (labour power), the subject of that work (materials) and the instruments used (tools).

Marx made a distinction between work and labour seeing work as the qualitative aspect of the process and labour as the quantitative, value-creating aspect of the process. A great number of workers gathered in one place, all of them contributing to the making of one product for the same entrepreneurial master, constituted for Marx the origins of capitalism. He commented on the division of labour; in manufacturing terms an efficient system where each individual concentrates on only one small part of the production process. In human terms, however, he saw this as unnatural because all variety is removed and motivation reduced, along with any sense of satisfaction in a completed product. He used strong terms to describe the impact of the division of labour, describing the worker as a 'crippled monstrosity', riveted to a single fractional task and 'working with the regularity of parts of a machine' thus the victim of alienation within the work environment. Much of the manufacturing process in the factories of Marx's time used heavy machinery. He analysed the nature of machinery use and of the difference between using tools, with which the user can have some control over what is produced, and using machinery, where the product is controlled by the factory owners. Such considerations brought Marx to discussion of the alienation of labour. Marx's analysis of the alienation of labour in the production process was based on his belief that the advance of

capitalism brought about an impoverishment for workers. Work had become an abstract activity because it often consisted of wage-work in manufacturing where the individual worked for the wider satisfaction of the factory owner and the subsequent consumers of the goods, rather than for the satisfaction of his own particular needs.

> In Marx's ideal society work is to be its own reward and life finds meaning in work. It is the faulty organisation of work in a class society that engenders antagonistic relations between men and results in coercion. (Marx: Capital cited in Applebaum, 1992:443)

Figure 6 – Tapping Molten Metal, Dalzell Works, Colvilles Ltd., 1900 – 1910.
Photograph Courtesy of Motherwell Heritage Centre.

Marx saw the huge wealth that could be generated by capitalist production methods but that none of the benefits came to the workers. It was not just the distance between the workers and the value of what was produced that was of concern but that the workers themselves had become commodities and thus became further devalued the more they produced.

> The alienation of the worker in the capitalist economy is founded upon this disparity between the productive power of labour, which becomes increasingly great with the expansion of capitalism, and the lack of control which the worker is able to exert over the objects which he produces. (Giddens, 1971: 11)

Marx explored various dimensions of alienation. The first is the workers' lack of control over what they produced. Originally goods were produced because they were needed for subsistence. In the capitalist production system goods are produced on a large scale for the purposes of exchange and gaining profit. The sale and distribution of goods is dictated by the needs of the free market and the profits come to the controllers of their production, the factory owners. The workers have no role in the process after the initial labour of production. The market benefits the capitalists at the expense of the workers. The second aspect is that of alienation in the labour tasks performed. The worker is detached from the purpose and end product of the article on which he expends his labour. It has no significance as an object to the worker. The purpose of the work, for the worker, ceases to be the production of an object but the expending of labour in order to earn a wage. The work becomes the means to an end and not an end in itself. This change in relationship between worker and product leads to Marx's third aspect for exploration, which has to do with the remuneration that is made for the labour. The end for the worker becomes economic. He earns money for his labour rather than keeping the articles that have been produced. Thus the alienation of labour brings about a change in the economic position of this worker and this in turn has a social impact. ". . . human relations, in capitalism, tend to become reduced to operations of the market." (Giddens, 1971:12) A fourth aspect is related to the technical and cultural sophistication of human productivity that sets man apart from other animals. This distinction is lessened by the alienation of labour when workers toil menially to produce goods that are meaningless to them.

Marx observed that the bourgeoisie had struggled against an oppressive feudal nobility to establish itself as the ruling class. They needed the proletariat to support them through their labour and thus sustain their position of power, but the bourgeoisie in turn became too oppressive themselves. Thus the labouring classes were sinking as industry progressed and devoured their freedom. Marx thought that the proletariat would rebel and that revolution would be the inevitable outcome. This inevitability he believed would result from the accumulation of capital, according to his theory of surplus value. He explained that the worker receives payment of a part of what his labour actually earns, which is just sufficient for his own needs. The time spent is what Marx describes as 'socially necessary', being the time needed for production under normal conditions and with an average degree of skill. The amount of labour expended actually produces much more in value terms than the worker is paid. The rest, the surplus value, goes to the capitalist owner. Marx referred to the gap between necessary and surplus labour as the 'rate of surplus value' or the 'rate of exploitation'. This he believed would eventually precipitate the workers to revolt and that the revolution would make the working class victorious. Anthony (1977) describes Marx's predicted scenario thus:

> Class conflict will disappear with the final disappearance of classes. The proletariat will finally succeed when it abolishes its own supremacy. At this point we will see the withering away of the state and also, in a sense, the end of history; as class conflict has provided the dynamic force which has caused all historical development, the end of the class conflict will, presumably, see the end of historical development. (Anthony, 1977:119)

It was Marx's expectation that a revolution would overthrow capitalism and establish a social order built on communist ideals. He did not, however, want the revolution to come too soon, before the workers were ready to assume their place. This would involve revolutionaries taking power and attempting to establish socialism until such times as the economic circumstances could provide support. He believed that the optimum time would arrive when the workers were fully aware of the events of history shifting in their favour. The revolution that Marx predicted has not in fact happened, although some contemporary Marxists would argue that it is still to come or that its influence has not yet unfolded. The late Twentieth

Century discrediting and dismantling of the massive communist power of the former Soviet Union makes it now seem less likely, at least in the format in which Marx predicted.

> Marx's dreams of a socialist alternative to capitalism are dead. But some of the values which drove the socialist project – those of social community, equality and caring for the weak and vulnerable – are still very much alive. (Giddens, 2001: 676)

3.2.2 Weber: Work as Ethic

Max Weber was born in Germany in 1864. He was a sociologist and philosopher but wrote extensively in several disciplines. He was particularly interested in the social organisation of modern society and the development of capitalism. His work was therefore influenced by and followed much of Marx's writings but Weber, although he respected Marx as an economic and social historian, was critical of some of the views espoused by Marx. In particular, he rejected the view that economic conditions are causal connectors of historical development or that "all historical processes are essentially unidirectional." (Ringer, 2004:113) Weber approached his sociology from a basis of strong historical knowledge and set out to study the essential meanings of society: to understand and explain what men did. He undertook several studies in the sociology of religion, among which is his extremely well know study of the relationship between the Protestant ethic and what he referred to as the spirit of capitalism. (Weber, 1930) In this study he traces a link between protestant views on, and values of, work as human endeavour and the development of modern capitalism. He was interested in attitudes to work within a capitalist system, how these affected workers' social and personal situations and whether these attitudes could be seen to stem from religious beliefs which embraced a particularly strong work ethic. The term 'spirit of capitalism' is given an initial and religion free meaning in the words of early US reformer Benjamin Franklin, whose words are referred to in Weber's writing. Money is given a high significance and its generation and acquisition is regarded as honest endeavour and indeed moral duty. Weber supports this early position using a satirical commentary of the time:

> Truly what is here preached is not simply a means of making one's way in the world, but a peculiar ethic. The infraction of its rules is treated not as foolishness but as forgetfulness of duty. That is the essence of the matter. It is not mere business astuteness, that sort of thing is common enough, it is an ethos. (Weber, 1930)

Weber claims here to be referring particularly to Western European and American capitalism. Forms of capitalism could be found in the East, in the classical world and in the Middle Ages but without the particular ethos that was emerging in the modern Western world. Weber sees this ethos as a reversal of a natural relationship.

> Man is dominated by the making of money, by acquisition as the ultimate purpose of his life. Economic acquisition is no longer subordinated to man as the means for the satisfaction of his material needs. (Weber, 1930)

Weber maintained that this ethos had some parallels with certain religious ideas, particularly the notion of a calling by God to a particular way of life. As a call from God the path had to be pursued with dedication and no slacking, as he put it:

> . . . one's duty in a calling, is what is most characteristic of the social ethic of capitalistic culture, and is in a sense the fundamental basis of it. It is an obligation which the individual is supposed to feel and does feel towards the content of his professional activity, no matter in what it consists, in particular no matter whether it appears on the surface as a utilization of his personal powers, or only of his material possessions. (Weber, 1930)

Weber asserted that there were different notions of capitalism and tried to find a definition of an 'ideal type' to represent the essence of capitalism by isolating some of its characteristics for study. He sought to explain the origins of the particular approaches which characterised capitalist endeavour and, as part of this search, reported evidence of a particularly calculating sort of acquisitiveness in New England, an area founded by settlers with religious motivation. He went on to reason that the acquisitive ethos of capitalism in this area was not for materialistic gain but rather due to the pursuit of a calling that promoted hard work and eschewed waste.

In pursuit of explanations of the formation of the capitalist system of economic operation, Weber explored the possibilities of psycho-religious motivational influences. He wrote extensively on his perceptions about the influence of certain developments of Protestantism and derived from this his major thesis *The Protestant Ethic and the Spirit of Capitalism* (see

Weber, 1930) already referred to above. In this thesis he begins briefly by noting that in certain areas of Germany, with mixed religious observance, there was a predominance of some Protestants with notable wealth and related status. This suggested a correlation between their beliefs and the ways in which these individuals pursued their economic arrangements. Weber then went on to establish an affinity between the spirit of a Protestant ethic and what he described as a spirit of capitalism. The thesis is taken further with consideration of the influence of different religious ethics and in different cultures, but this last part of the work is incomplete. It is the second of these three sections which was most elaborated on by Weber and which has had the greatest impact on studies of the effects of capitalism up to the present day. The case put by Weber in this thesis is clearly delineated by Raymond Aron (1967). He describes the arguments as follows. The particular type of Protestantism referred to by Weber is that of Calvinism and he summarises their conception of belief in five points:

- There exists an absolute, transcendent God who created the world and rules it, but who is incomprehensible, inaccessible to the finite minds of men.
- This all-powerful and mysterious God has predestined each of us to salvation or damnation, so that we cannot by our works alter a divine decree which was made before we were born.
- God created the world for His own glory.
- Whether he is to be saved or damned, man is obliged to work for the glory of God and to create the kingdom of God on earth.
- Earthly things, human nature, and flesh belong to the order of sin and death, and salvation can come to man only through divine grace. (Aron, 1967)

Weber argued that within this interpretation of man's relationship with God there was nothing else that could be done but to work for the glory of God. A possible position that could be taken is that, since the Calvinist does not know whether or not they have been chosen by God to be saved, they might seek some indication of the likelihood of their being among those predestined for Heaven. Business success and the accumulation of profit through diligence and selfless application may be seen as just such an indicator. Working rationally to make gains without the intention to spend them but rather to reinvest in further means of production was seen as a means of conducting oneself according to the command of God. It is in this explanation of a work ethic, inspired by Calvinistic beliefs, that Weber shows the

correlation with the development of capitalism and claims a causal relationship. He claimed that this approach to economic activity was confined to Western capitalist cultures and provided an explanation of the motivation for the pursuit of profit in order to produce more and more.

This major thesis of Weber's has received enormous attention but has also been criticised as either lacking sufficient evidential bases or of being narrowly defined in historical/sociological terms which would not draw the same conclusions if examined from the standpoint of other disciplines (Green, 1959; Lehman, 1993). Anthony Giddens however describes Weber's *The Protestant Ethic and The Spirit of Capitalism* thesis as "a preliminary explanation of a complex set of issues, and his claims for the range of its application are modest and restricted." (Giddens, 1971:131) There is, however, no doubting the influence of the thinking and its impact on our understandings of conceptions of the nature of work.

Diarmid MacCulloch (2003) sees Weber's suggested causal link between Protestantism and Capitalism as:

> . . . adroitly standing on its head the contention of Karl Marx and Frederick Engels that Protestant ideology was the superstructure of change in economy and society. (MacCulloch, 2003: 604)

Weber, however, agreed with Marx's view that capitalism is in essence the pursuit of profit through utilisation of market conditions. They would also have agreed that enterprise occurs through workers who are able to sell their labour power to those who possess the means of production and that capitalist enterprise has made use of and contributed to the development of technology for the purpose of further increasing profit. The difference in Weber's view is in the area of bureaucratic rationalism.

> Essential to modern capitalistic enterprise, according to Weber, is the possibility of rational calculation of profits and losses in terms of money. Modern capitalism is inconceivable without the development of capital accounting. (Giddens, 1971: 179)

Marx was concerned with the way in which capitalism operated and its impact on workers while Weber by contrast strove to explain the formation of the system rather than the way in which it functioned. Weber's ideas were taken up by R H Tawney in *Religion and the Rise of Capitalism* (1926) where he argued that capitalist urges also arose in other cultures but conceded that there was a particular urge to accumulation and control of the means of production evident in "certain aspects of later Puritanism" (Tawney, 1926: 226)

Fritz Ringer (2004:8) describes Max Weber as "one of the greatest clarifying thinkers of our age", referring to the fact that, although influenced by the concerns and interpretations of his particular social and political context, he succeeded more than most in standing apart and clarifying the issues of his time and state. Although he looked widely for comparative examples and searches for meaning, Weber's interest was in influencing the social and educational systems and ideologies in the Germany of his day. Philosophy was considered the most important area of educational study in Weber's time. The ideal of *bildung,* a term meaning much more than education but rather a self-cultivation and enhancement of person, gave weight to the emphasis placed on German idealist philosophy (Ringer, 2004:8). Weber in contrast came to believe that studying specialised knowledge for access to the professional occupations was essential for German economic and social progress. He also identified individuals' class positions as important factors in determining their influence over goods and services. Class could determine market advantage. Combinations of property ownership and educational qualifications were indicators of success for the middle classes of the time. What Weber called positively privileged income classes derived from entrepreneurs, merchants, bankers, agricultural managers, members of the 'liberal professions' or highly skilled workers. Low skill workers of various sorts were within negatively privileged income classes (from Weber's *Economy and Society* described in Ringer, 2004:228). Weber defined social classes as sets of similar class positions. Mobility within and among class positions was possible and occurred but between social classes was rare. He wrote about 'social esteem' as an aspiration towards status position and noted the role of education in determining both class position and

status esteem position, considering status differences and education differences of particular significance in Germany.

3.2.3 Arendt: Labour/Work/Action

Hannah Arendt was born in Hanover in 1906. Her early studies were conducted in German universities and in France, until her work with Jewish and political refugee communities became increasingly difficult to sustain in Nazi occupied France. She managed to escape with her husband to the United States in 1940 and moved to New York where she was based for the rest of her life. She wrote about many issues from a distinctive traditional political philosophy.   Being born to Jewish parents she was educated in that tradition and subsequently wrote on various issues relating to the Jewish question, her opinions on the setting up of a Jewish state and the trials for war crimes of Nazi prisoners after World War II. After formal immigration into the United States in 1941 her writing was to range over many topical issues of the day as well as philosophical and sociological explorations of political freedom. Although she had occasion to criticise political and social occurrences in America, Arendt also valued the political freedom afforded to her as an American citizen.

> She treasured in the United States the opportunity that Jews and other naturalized immigrants had to exercise full political rights, without having to pretend that they were other people than they really were. Here it was not necessary for a Jew to choose between being a parvenu or a pariah: one could be both an American citizen, and loyal to one's origins, without any conflict. (May, 1986: 73)

Arendt wrote many books, papers, articles etc in her lifetime. The second book, *The Human Condition,* was to have as its subject her ideals of political freedom. In this book she placed work as part of three fundamental human activities: labour, work and action. The human condition of labour is life itself, the provision of the needs of living and born of necessity. Work provides the world with artificial things, distinct from what is produced by nature and which can outlive the workers who made them. Action is activity not mediated by things or matter:

Labour assures individual survival. Work bestows permanence and durability upon mortal life and the fleeting character of human time. Action preserves political bodies and creates the condition for remembrance - that is, for history. (Applebaum, 1992:492)

This three-facetted approach is detailed in *The Human Condition* in 1958 with a chapter devoted to each, and again in a paper *Amor Mundi: Explorations in the Faith and Thought of Hannah Arendt* deriving from a lecture given in 1964. (see Baehr, 2000).

Chapter III of *The Human Condition* is entitled *Labor*. Arendt begins by making, what she herself claims to be, an unusual distinction between labour and work. She claims that the two terms, despite having been distinguished by separate words in many European languages, have come over the years, and since classical times, to have lost their separate meanings.

To labor meant to be enslaved by necessity, and this enslavement was inherent in the conditions of human life. (Arendt, 1958)

So labour for Arendt meant the struggle to provide for the necessities of subsistence. The outcomes of labouring are immediately consumed by human survival needs and are used up as soon as they are produced, whereas the products of work are artefacts or tools that can exist beyond the immediate need for their production. Arendt's fundamental distinction between labour and work is in whether the effort is unproductive or productive. "It is indeed the mark of all labouring that it leaves nothing behind, that the result of its effort is almost as quickly consumed as the effort is spent." (Arendt, 1958:87) Arendt's argument was that the spectacular rise of labour, from being at the lowest and most despised of positions to the highest ranking and esteemed of activities, began with Locke, who discovered that labour is the source of all property. This was followed by Adam Smith who asserted that labour was the source of all wealth and finally Marx contended that labour became the source of all productivity and the very expression of man's humanity.

Arendt deals with *Work* in chapter IV of *The Human Condition*. The work of our hands is what makes things or objects for use, property can be derived from the durability of objects

and value becomes attached to objects when they can be used for exchange:

> This potential multiplication, inherent in work, is different in principle from the repetition which is the mark of labor. (Arendt, 1958:141)

Making things takes resources from nature, changes or violates them by working on them and contributes to destroying nature. The process of making things is determined by the means used and the ends envisaged. Tools and instruments are important in work. They can make the burden of labour easier but, in Arendt's analysis, through their use in work they contribute to a 'world of things' and as such determine all work and fabrication.

> The end justifies the violence done to nature to win the material, as the wood justifies killing the tree and the table justifies destroying the wood. Because of the end product, tools are designed and implements are invented, . . . (Arendt, 1958:153)

Arendt describes *homo faber,* the worker or fabricator, as having a public realm through taking part in exchange in the market. In this way he can show his products and enjoy the esteem that they can bring. This is how he achieves status and power. However, the development of commercial society meant that it was not always the fabricator in person who conducted business in the market but the owners of the commodities, a circumstance which was often pointed out by Marx in his theory of alienation. Arendt also explores work in the sense of producing 'works of art'. Their permanence as end products, because they are not designed for constant use, means that they are less subject to decay by natural processes. They are fabricated after man has thought of them. Products such as paintings, poems and pieces of writing are the results of ideas:

> The reification which occurs in writing something down, painting an image, modeling a figure, or composing a melody is of course related to the thought which preceded it, but what actually makes the thought a reality and fabricates things of thought is the same workmanship which, through the primordial instrument of human hands, builds the other durable things of the human artifice. (Arendt, 1958:169)

Action is the third distinction of the *vita activa* that is described by Arendt in chapter V of *The Human Condition.* It is through action and speech that we insert ourselves in the human

world and distinguish ourselves as individuals, more so than by merely being distinct. By acting, Arendt here means taking an initiative and thereby beginning something:

> The fact that man is capable of action means that the unexpected can be expected from him, that he is able to perform what is infinitely improbable. And this again is possible only because each man is unique, so that with each birth something uniquely new comes into the world. (Arendt, 1958:178)

Human action requires speech, and human affairs are made up of the 'web of human relationships'. Unlike work as in fabrication, action and speech need to be amongst the acts and words of others: to establish relationships. The political realm arises out of human action and speech:

> Thus action not only has the most intimate relationship to the public part of the world common to us all, but is the one activity that constitutes it. (Arendt, 1958: 198)

When people act together power is generated and small groups can wield significant power for example in ruling large nations. A particular characteristic of human action that Arendt warns us of is that once deeds have been done or action taken, no matter how small, the doer has no control over the ensuing events and the actions themselves are irreversible. We don't know all of the consequences when we act and we can't undo actions once they have been taken. The possible remedies to this irreversibility are the faculty for forgiveness, and for unpredictability, the faculty to make and keep promises, which Arendt sees as control mechanisms on new and unending processes of actions. It is the capacity for action that overcomes the frailty of life and death.

> Action, with all its uncertainties, is like an ever-present reminder that men, though they must die, are not born in order to die but in order to make something new. (Arendt, 1964)

In Arendt's thoughts on the *vita activa* then, there is a distinction between a life devoted to theoretical pursuits and a life devoted to practical activities. The products of labour are for consumption while those of work are to be used. Action is to take an initiative or to set some process in train. When labouring we deal with our bodily needs, when working we display

craftsmanship and in action we show how we are unique. "Work and labour reveal *what* a man is. Action reveals *who* he is." (Applebaum, 1992: 502).

Commenting upon Marx's political economy, Arendt maintained that it had been his intention to replace the traditional view of man as a rational animal (*animal rationale*) with one of man as a worker animal (animal laborens) but she believed that Marx went too far with this "seemingly blasphemous notion" by claiming that it was labour that had created man and not God and also that it was his labour and not his reason that distinguished man from other animals (Arendt, 1958: 86), although, according to Arendt this latter view had been expressed by others before Marx.

It is difficult to find direct links between Arendt's writing and educational policy making but there is a sense in which the clarity of her analyses of what it means to be engaged in work, whether as labour, work or action, offers teachers a way of looking at their pupils and their worth as individual human persons that was arguably not the normal view in industrial society. The text *Hannah Arendt and Education* (Gordon, 2001:2) has a forward written by Maxine Green in which she sees Arendt's 'linking of human freedom to action' as constituting a purpose for education.

> Education is the point at which we decide whether we love the world enough to assume responsibility for it and by the same token save it from the ruin which, except for renewal, except for the coming of the new and young, would be inevitable. And education, too, is where we decide whether we love our children enough not to expel them from our world and leave them to their own devices, nor to strike from their hands their chance of undertaking something new, something unforeseen by us, but to prepare them in advance for the task of renewing a common world. (Arendt, quoted in Green, 2001: x)

3.3 Issues for Education in Industrial Society

In educational terms there has been an alienation of parents' responsibility and influence on the employment destinations of their children. From early agrarian and cottage-industrial lives when parents prepared their youngsters to continue to the same occupations, lifestyle

and expectations as themselves, controlling influence transferred to the organisers of industrial society (Corson, 1993:12). As widespread education has become the norm, this form of alienation continues. Parents may have aspirations and set challenges for their children's future careers but it is their engagement with education, influenced in turn by industrialisation and social provision of education, followed more recently by post-industrial, knowledge economy driven demands, that has the upper hand in shaping employment futures. The extent to which parental and educational influence can harmonise is variable. Long developed family skills had traditionally been passed on and loyalty was expected to maintain and strengthen the family's interests. This system transferred fairly intact to crafts and guilds, which replaced direct family training, but maintained a close-knit and traditional loyalty base. Modern workers by comparison had their loyalties reconfigured by a contract with an impersonal employer resulting in a change in the nature and meaning of work and working. (Corson, 1993:17)

> The workers of the late Industrial Revolution (and their descendants today) were asked not only to tender their skills in exchange for a wage but also to conform to a new code of social behaviour; this code involved a radical change in the ways they viewed themselves, their work and their relationship to it. (Corson,1993:17)

Building on these philosophical, social and economic perspectives of how work can be understood, we can look at the implications for the sort of education that evolved and developed in industrial society.

3.3.1 Industrial Influences on Nineteenth Century Education

The success of Britain in the mid-nineteenth century following the Industrial Revolution, was built on political stability, inventiveness and huge supplies of cheap labour (Roderick & Stephens, 1978:1), with large numbers of the working class employed in mills, mines and other heavy industry in urban sites around the country. With Britain moving very quickly from an agricultural to an industrial economy from the start of the nineteenth century, it emerged that the technological advances and degree of specialisation needed by industry demanded a greater level of literacy in the workforce than had previously been required.

Following on this literary requirement was a need for some to have a basic grounding in science. Secondary education was patchy and badly co-ordinated and in the schools that there were, the standard and type of education was of variable quality. There was some technical education available that supported the development of aspiring working class students but was unlikely to provide much general/academic education.

> - - - technical education from its origins became associated in the public mind with the education of the artisan, the philosophy of middle class education meanwhile being firmly based on the principles of the Christian religion and on a knowledge of classics. (Roderick & Stephens, 1978:3)

It was thought that it was the lack of coherent secondary provision in the nineteenth century that was what allowed other industrial nations such as Germany to catch up with Britain's early industrial advantage. (ibid)

Karl Marx did not set out to produce any philosophy or theory of education in his writing but he did include ideas for educational practice to support his broader social theory. In *Capital,* Marx argued that a crippling effect of industrialisation made it difficult for workers to adapt to technological changes. Marx advocated polytechnical education for a

> . . . fully developed individual, fit for a variety of labours, ready to face any changes of production, and to whom the different social functions he performs are but so many modes of giving free scope to his own natural and acquired powers (Marx, Capital, cited in Small, 2005:105)

This was based on his interpretation of workers' needs for dealing with the effects of capitalism and the technological changes that were taking place in society. Polytechnical training in particular was part of Marx's plan for bringing about a socialist society. An important element in Marx's conception of education is his stress on the theme of 'full human development',:

> Marx's theory of human development emphasises the importance of labour in the formation of society and of the individual person, and that his programmes for reform in education directs its attention towards the needs of the class in modern society for which labour is the main task in life. (Small, 2005: 121)

but he did condone child labour, stressing that children should be allowed to be workers but that they should also be compelled to attend school.

Marx predicted that:

> there can be no doubt that when the working class comes into power, as inevitably it must, technical instruction, both theoretical and practical, will take its proper place in the working-class schools' (ibid:107)

Although he did not produce a theory of education as such he did make some comment on the nature of schools and learning that implied that his view of education was that it was a process.

> Marx's conception of the process of human history as 'revolutionary practice', a 'coincidence of the changing of circumstances and of human activity', embodies a concept of education as a learning-teaching process. (Price, 1986:107)

For Marx, theory and practice should not be separated and it must be remembered that his thoughts on the nature of education were intended for his particular age and directed solely at the educational opportunities of the working class. (Small, 2005:91) He acknowledged that the working class had been provided with a form of general and political education by the middle class but identified dilemmas. The dominant class harboured concerns that on one hand too much education would cause dissatisfaction or even dissent among lower classes and on the other that an educated workforce was seen as a pressing requirement. Marx advocated a combination of school and work, supported but not controlled by the state.

3.3.2 Industrial Influences on Twentieth Century Education

At the beginning of the twentieth Century Britain was a leading industrial nation but developments in education were happening more slowly. In Scotland, where primary education had been available for some time through parish schools, and the first public secondary school, Ayr Academy, had been established in 1746, it was into the early twentieth century before two hundred new secondary schools were to be established, mainly

in urban areas, throughout the country. By 1936, all pupils over 12 years of age were given the right to attend secondary school and in 1965 all secondary schools were made comprehensive. As will be seen in chapter 4 secondary schools were divided between junior and secondary provision and it was not until the early nineteen seventies that all public schools would finally become six-year comprehensives (see below).

In 1974, Harry Braverman, a Marxist activist and theorist, published his seminal text *Labour and Monopoly Capital,* which has been called the most powerful book ever written about work (Renton, 2007). In it he examines what he calls the degrading effect of capitalism on work in America and much of the strength of his work arises from the fact that it was written about his own lived experience of production line work in industrial society. Braverman agrees with Marx about the alienation of labour but claims that it had become more pronounced in the twentieth century. He noted that requirements for scientific and technical specialisation in industrial society caused a big expansion in higher education, with a consequent lengthening of average hours spent in school, and contributed to the spread of mass schooling in the United States. He traces the deterioration in the value of schooling that followed through greater numbers of school leavers with qualifications and too few jobs available for them. Employers began using school diplomas to screen new employees, even if they were overqualified for the job on offer, making it less likely for the non-qualified to find work. Braverman argues that this expansion created a gulf between educated workers and the simple jobs that they were asked to do and schools appeared to have become less efficient at delivering a satisfactory standard of education, in the prolonged time available. There was no link to be found between school education and job preparation and many jobs did not have any particular requirement of the school education system.

The rapid expansion of society and the accelerated pace that industrialisation brought to twentieth century economic and social life increased the need for a whole range of services and for education in particular. Schools served a function in catering to occupational needs for basic literacy and numeracy but increasingly as rural and small community life gave way to

urban working class areas, the schools were also a means of providing day care and socialisation. This prepared young people for their inevitable adult working roles, in the same kinds of employment as their parents had had, within typically capitalist arrangements of labour power.

> Whatever the formal educational content of the curriculum, it is in this respect not so much what the child *learns* that is important as what he or she *becomes wise to*. In school, the child and the adolescent practice what they will be expected to snatch from the fast-moving machinery: their needs and wants. (Braverman, 1974:287)

Class differences in society, and particularly as they are manifested in the workplace, were modelled and perpetuated in the school system as it had been developing in the nineteen sixties and seventies. Pupils following low level and low status, examination or non-certificate, courses formed the expected workforce for those jobs in industry that were themselves non-skilled and labour intensive. The education on offer provided a self-fulfilling prophecy for these working class, usually male, young people and according to Paul Willis, in his highly acclaimed text *Learning to Labour* (1977), permitted a class and institutional culture to develop that was counter-school and workplace antagonistic. There was an opposition to authority and a ". . . struggle to win symbolic and physical space from the institution and its rules and to defeat its main perceived purpose: to make you 'work'." (Willis, 1977:26) He examined the cultural norms and patterns of behaviour of young people in such low expectation school environments, tracing the development of roles and practices that later formed the bases of power relations established within low status industrial workforces. Willis thus highlighted the 'many profound similarities between school counter culture and shop floor culture' (p.39). The major difference between school and employment, which to an extent ameliorates anarchic behaviour at work, is the reward of wages. No matter how insubordinate or disrespectful workers may feel in their attitudes to authority, the situation has a main aim of acquiring remuneration, which buffers it from reaction to the often unpleasant working conditions and the effects of alienation from the articles produced.

3.3.3 Welfare, Work and Education

The post World War II period has been characterised by the growth of free market economies coupled with attempts to offer workers freedom to participate in the planned 'economic nationalism' envisioned by western post war leaders. Individuals and family breadwinners were to be given opportunities to participate in equality of opportunity for economic growth. (Brown and Lauder, 2001:16)

> The popular demand was for an economy which allowed for the equality of sacrifice experienced in war to be matched by a more equal sharing of the fruits of peace. (Brown and Lauder, 2001:17)

Questions of individuals' needs and rights to keep themselves and families out of poverty, societies' aims for full employment to prevent people falling into poverty traps and the inequalities that are bred by a free market economy were being considered in this period by Western nations. According to Esping-Anderson (1989), modes of social reproduction that were previously depended upon to maintain and support society, such as the church, extended families and guilds, were being eroded due to the individualism, urbanisation and mobility required of industrial society and so specific policy to maintain society came to be seen as necessary.

> The crux of the matter is that the market is no adequate substitute because it caters only to those who are able to perform in it. Hence, the 'welfare function' is appropriated by the nation-state. (Esping-Anderson, 1989:13)

While aspiring to promote free markets to stimulate economic growth, nations were aware of the divisive effects of capitalism, particularly on those who are not economically active or unemployed, whether through lack of opportunity to work or through ill health, and therefore not able to support themselves. Welfare programmes of different varieties were set up by governments in various western nations to take responsibility for the care of those made vulnerable through capitalism's ruthlessly competitive approaches to economic growth. Indeed, according to Giddens (2001:332), "Most industrialised and industrialising countries in the world today are welfare states." Prior to the World Wars in the first half of the Twentieth Century, social assistance was available but mostly provided by charitable, mainly religious,

organisations and not centrally organised so that families living in dire poverty and need could be missed and left starving and homeless. Scotland is part of the UK social welfare system that was established by the legislative measures that were set up following the Beveridge Report of 1942 and which is considered to have been the blueprint for state organised welfare provision. A range of Government Acts set up social systems for areas such as assistance for families, health, education, housing and insurance against loss of earnings as the means of tackling the five great evils of the day: Want, Disease, Ignorance, Squalor and Idleness (Giddens, 1998: 117). The Welfare State thus set up was intended to support the population within the accepted and promoted notion of the role of families in society that was prevalent at the time. The system was therefore patriarchal and designed to assist families with one male earner providing for a wife who stayed at home to care for children. Different family patterns were less often found at the onset of the Welfare State and those in atypical situations were still vulnerable and likely to be excluded from benefits. Allocating welfare benefits allowed families to operate within acknowledged national economic aspirations and extended to individuals the notion of citizenship for all. The extent of this participative citizenry varied among nations depending upon the degree of entitlement allowed by the state. Sweden is generally regarded as the system allowing the highest level of participation for all regardless of the degree of welfare support allocated whereas the United States developed the least participative system with greater restrictions on eligibility for welfare. (Brown & Lauder, 2001; Esping-Anderson, 1999). Standards of living, health care and educational opportunity have all risen considerably since the introduction of the Welfare State in Britain and the blight of poverty, while not eradicated, has altered in form and the severest cases have been reduced. It has not however been the answer to every ill in society and critics have highlighted the enormous bureaucracy surrounding its organisation and the spiralling costs that have to be met by governments from revenue raised from taxes (Eisenstadt & Ahimeir, 1985:4). 'Conservative' critics who advocate a free market economy tend to complain that interference in society by a welfare state takes away individual liberty, runs the risk of moving towards socialist or communist regimes and takes up too much time and resource from government. 'Moderate' critics accept the principles of the welfare state but are

unhappy with poor implementation and execution of services that can have a disproportionate effect on weaker groups in society as they bear the brunt of uneven distribution of help within the system. "Traditional Radical' criticism again accepts the principles adopted but is unhappy with the level of organisation, preferring instead a more Marxist style that would reduce private property and distribute resources more equally by setting up a revolutionary and more democratic style of government. The fourth type of criticism is that of the 'New Radicals'. These come from New Left groups who would prefer a welfare state that looks after the individual, communities, problems of alienation with work and its impact on the environment (Eisenstadt & Ahimeir, 1985:6). Despite its problems and criticisms, the welfare state in Britain came to be an established element of the fabric and standard structure of our society that can be understood as

> . . . a complementary process in the *evolution of a relatively coherent tripartite structure* consisting of: capitalist market economy, democratic mass polity, and welfare state. (Flora, 1985:11).

3.3.4 State Education and the Comprehensive School

State provision of education for all has been a major part of welfare provision in Britain. Apart from Independent Schools, that were only accessible for the wealthy, post war secondary education in particular was a confusing mix of selective and local schools that depended on the Eleven Plus examinations in England and Wales and the Qualifying Examinations taken at age twelve in Scotland to select young people for different kinds of educational experience. Socialist governments in Britain in the nineteen sixties and seventies sought to reorganise secondary educational provision and to provide a comprehensive school system in the hopes of removing inequalities of access. In the nineteen fifties and sixties in Britain there was evidence of a growing and prosperous working-cum-middle class with high aspirations for their baby boom children who were reaching the end of primary school education. (Weeks, 1986:2) Work was available in new industries and parents were eager for educational opportunities for their children. This was not initially a political change but " By 1960 . . . the attention of labour leaders was engaged by the need to acquire the votes of an

aspiring working-class" (Weeks, 1986:3) and so comprehensive education was adopted as part of the Labour Party's modernisation programme for society and by extension the economy. Selection had traditionally been based on examination results at the end of primary education and decisions taken about the type of school that pupils should move to for their secondary education. Selection based on exam results, however, caused problems with large numbers of pupils ending up in unsuitable situations or not being given opportunities that they may have coped with well but were refused on the basis of test scores. Comprehensive schools seemed likely to provide a solution to such difficulties:

> A full application of the comprehensive principle would mean that every secondary school would potentially be capable of providing for the needs of any pupil of secondary school age. No school would be distinguished from another simply because it was of a particular type. The schools would be by no means identical and some might offer some specialised facilities and courses for particular local reasons, but ideally there need be no reason to regard any one school as being a better sort of school than another. All would be secondary schools providing for the needs of pupils from the age of about eleven onwards. Each such school would regard its function as being to provide as full an education as possible for each individual pupil (Cole, 1964:37)

In Scotland, where despite the 1707 Act of Union education was still the responsibility of the Scottish Office, State control of education was substituted for Church interest as early as the Scottish Education Act of 1872. This Act referred to primary and secondary schools and created a cultural authority for the administration of schools. In 1901 the school leaving age was raised to fourteen years with a clear break between primary and secondary education at age twelve, despite the fact that many primary schools provided some secondary education in Advanced Divisions. Those schools that operated on comprehensive principles were called Omnibus Schools at the time in Scotland. Comprehensive education was recommended in Scotland by its Advisory Council on Education soon after World War II as 'the natural way for a democracy to order the post-primary schooling of a given area' (SED, 1947: §164). There was some controversy surrounding the ending of selection in the nineteen sixties but generally "Scotland's reorganisation went along more purposefully – and with greater local support – than was the case in England" (Benn & Chitty, 1996: 10)

Throughout Britain and particularly in England and Wales there was fierce debate about the appropriateness of comprehensive schools. It was argued that the future political and professional leaders of the Country required a more specialised education than could be provided in a comprehensive environment but that administrative and modern industrial organisational roles could well be served by the flexible training that could be encouraged in comprehensive schools (Cole, 1964:166). Cole's view was that the Comprehensive School could serve a purpose in shaping society but not as "the prime moulder of modern society" (Cole, 1964:167). Issues of social class and equality of opportunity loomed large in the debates in both educational and political agendas. The comprehensive ideal was intended for pupils of all abilities and social backgrounds. AH Halsey (1961:32) commented that "social selection disguised as academic selection is a process at work in all schools". Social class was operating as a factor in the spread of educational opportunity allowing it to determine educational performance. It was hoped that providing more opportunity would ensure that all pupils would be given the chance to optimise their life-chances. The new comprehensive ideal was criticised however as providing an "equal chance of becoming unequal" with a concern expressed that "Far from dismantling social stratification, social mobility, through a meritocratic contest system, would intensify it" (Weeks, 1986:7). Socialist politicians were keen to move to comprehensive education, however, and pursued this particular educational reform.

3.3.5 Social Reproduction and Social Mobility

Comprehensive schools were expected to remove inequalities of access to secondary education but another concern of the Labour government of the day was to attempt to blunt the severe class distinctions that existed in society. These distinctions were seen to continue through being reproduced within different classes in society such that sociologists have claimed that "social reproduction has been *the* central theme in the sociology of education" (Gewirtz & Allen, 2003: 242). The school, the family and community influence are all said to contribute to the reproduction of the structures of social status within society so that the same "hierarchies of 'classes' and occupational status" continue from one generation to the

next (Demaine, 2003:125; Fitz et al: 2006). Social reproduction studies look at the processes through which intergenerational social status and class related occupations remain the same within families and social mobility studies examine the ways in which individuals can move from one social class to another thus interrupting the patterns of social reproduction. According to Fitz et al (2006), reproduction theorists deal with economic production, "the realm of the economy, material production of objects, the circulation of finance" (p 63) and also social production, "institutions concerned with the production and circulation of culture, ideas, services" (p 64) that contribute to the socially created division of labour that allocates different hierarchical importance to different sorts of jobs. It is easy to see how workers, and potential workers while still at school, can become locked into perceptions of what sorts of jobs are available for them and to which they can aspire.

> Social reproduction theorists have been concerned to examine how institutions and agencies outside the field of economic production, such as families, schools, churches, universities and other cultural institutions, reflect the differentially distributed system of values of the division of labour. . . . Among the institutions associated with social reproduction, schools have been assigned a key role.
> (Fitz et al, 2006: 64)

Sociology of education is particularly concerned with the socialisation that occurs within schools and families and that appears to lock young people into self-fulfilling prophesies such as Paul Willis' (1977) example (see above) of "working class kids get working class jobs". This has led to a protracted debate about school effectiveness that has claimed that schools on their own could enable young people to break out of their socially expected norms and increase their levels of academic success and by extension their social mobility. With respect to the origins of the School Effectiveness Movement, Mike Bottery (2000) has commented that writers such as Bourdieu (1977), Bernstein (1977) and Bowles and Gintis (1976) had been highlighting beliefs that schools in fact reproduced inequalities in society rather than reducing them. A series of ethnographic studies subsequently seemed to produce evidence suggesting that schools *could* 'make a difference' through various in-house managerial strategies, regardless of their wider social context (Rutter et al, 1979; Mortimore et al, 1988), a position that was welcomed by policy makers seeking justification for taking more control

over, and making schools more accountable for, the curriculum and its acquiescent implementation. Although the lack of consideration of the school effectiveness movement of wider social and cultural influences has in more recent times been criticised (e.g. Reynolds, 1994; Fullan & Hargreaves, 1992), and superseded by notions of effectiveness being linked with school improvement, the idea that schools could make a difference to the life chances of young people contributed to what changes in social mobility did occur. Prandy et al (2007) claim to show that over two centuries the rate of change in social mobility that appears to be influenced by education is very slow indeed, with minimal increase in job status hierarchies over time. The situation in Scotland in the past three decades however, where greater numbers of students from working class backgrounds, with parents who had industrial or manual occupations, are becoming the first in their families to attend university and obtain positions in a range of professions previously the preserve of middle class families, seems to show that a great deal of social mobility has arguably taken place. This seems to indicate an example of one area of success from comprehensive education, or at least that it has become possible to realise aspirations of social mobility, whatever their source, while participating in the public education system.

3.3.6 State-Centred Education

The three traditional providers of education have been the family, the church and the state with the state having a much larger role in more recent history. According to Meyer (2001: 14), the notion of state centred education can in fact be traced to classical antiquity but certainly through the Nineteenth and Twentieth Centuries, we can see the influence, as explained in this chapter, of industrialisation on the work patterns of the masses and the related developments in education for all, as it increasingly became the preserve of the state in many Western industrial nations. Although Marx had advocated socialist government that would encompass education for all, including the children of working class families, supported by but not controlled by the state, education has become a state concern in the UK as part of welfare provision. Primary and secondary education for all has been provided by successive governments in later industrial society and many of the shaping influences of the nature of

that provision have been driven by socialist governments anxious to control the educational means of social reproduction and be the provider of the means of social mobility.

It can be seen from Chapters 2 and 3 that by the later stages of industrial society work had become settled into occupational hierarchies in the same way that society was tightly banded into social classes with interlinking causal factors. Education had become moulded to patterns of organisation that reproduced these circumstances. Attempts to bring about social and political change that would allow for more mobility depended heavily on educational reform. Broad understandings of the nature of work and the gulf between the jobs of professional and technical workers and those of manual and unskilled workers remained and seem to have been accepted as the norm. With views about the nature of different kinds of work becoming so embedded in the social, political and cultural consciousness of industrial society it is not surprising that educational provision as preparation for adult working lives struggled to provide appropriate learning experiences for all. Work-related purposes of education came to mean different things for those destined for professional careers seeking access to academic preparation and for those aiming at more technical occupations and for whom practical skill acquisition was more useful. This chapter has examined in more detail the historical developments in understanding of the concept of work and their relationship with work-related purposes of education during the industrial economy of the nineteenth and twentieth centuries, in response to questions 3, 4 and 5 posed in Chapter 1. Although in a broad sense all education that prepares for the taking up of adult roles in a society, where having a job is highly important, can be said to be addressing work-related purposes, an academic/vocational divide came about in school education that mirrored the stratified patterns of both work and social status in industrial society. This development is examined in Chapter 4.

Chapter 4 – Conceptualising Vocational Education and Tracing its Tradition and Distinctiveness in Scottish Education

4.1 Vocational Education in the Curriculum

When work related purposes of education and training are given high priority the arrangements made are often described as vocational. Vocational education and training (VET) can be defined as education that places emphasis on preparing school pupils for the world of work by providing practical training and skills development that should be relevant to their future employment. There are however contested aspects in how VET can be defined and in how it relates to other purposes in education, particularly in the school setting. In general education environments vocational education can be the poor relation of wider and sometimes more academic purposes and in technical training environments a perceived lack of general education due to concentration on vocational purposes can be a concern. This chapter therefore examines some of the dilemmas, distinctions and tensions that arise when vocational education is provided. The particular ways in which vocational education has developed in Scotland are traced from 1947 to the present day and its location within general curriculum initiatives currently being developed. There are differences of opinion about how vocational education should be positioned within schools and in particular how it can be located in relation to traditional academic curricula. Howieson et al, (1997), describe the educational, economic and social arguments for bringing academic and vocational education together within curricula as follows:

> The educational argument is that the distinction between academic and vocational learning is arbitrary and obstructs effective learning; the same learning experiences typically serve both sets of purposes, and should be planned accordingly. The economic argument is that a high skill economy requires all its workers to have high levels of general education, and calls for new types of skills and knowledge which transcend the academic/vocational boundary as this is currently understood. The social argument is that the current division between academic and vocational tracks reflects and reinforces social divisions which are both unjust and inefficient. (Howieson et al, 1997:5)

Direct links between education and work are at their most explicit in the upper secondary

school stages when often there are options provided for participation in some form of vocational education and this can take a variety of forms. A review undertaken by the Organisation for Economic Co-operation and Development (OECD) describes some of the various upper school pathways found in member countries under the heading 'work experience combined with education' thus:

> . . apprenticeship, based on agreements and training frameworks developed jointly by governments, employer organisations and - in most cases - trade unions; a variety of structured programmes organised by schools; or part time jobs not connected in an organised way to students' education . . . (OECD, 2000:91)

4.1.1 Dilemmas of Vocational Education

Vocational education often seems to be the poor relation of liberal education and the antithesis of a traditional academic education. There are some areas where dilemmas present themselves in relation to vocational education. The first is the political imperative to encourage education to produce school leavers who are well prepared to move into industry and business with skills and attitudes of use to production, trades and commerce. There is strong emphasis in current political demands on education for relevance and preparedness for the world of work and calls for basic skills to be included among indicators of success (Pring, 1995:6). Another dilemma is in the timing of making choices between vocational or academic routes when they are available in young people's school education. On the one hand it appears to make sense to make a start on work related training and skills development as early as possible but on the other a premature decision to move away from a more general education can cut young people off from chances to alter decisions before a breadth of knowledge and appreciation of wider opportunities has been attained.

4.1.2 Liberal/Vocational Distinctions

The history of education is a litany of attempts to define its purposes and to find approaches that meet the needs of learners within their social and political contexts. The duality of meeting social and economic needs while raising the engagement of the hearts and minds of learners has meant steps forward and back in terms of accessibility and suitability of curricula. Distinctions

and tensions developed between two schools of thought that are described as liberal and vocational education. Liberalism in education appears in different forms and has become broader in scope to embrace aspects that have come to be seen as consistent with a liberal education. Conservative liberalism in education refers to the view that emphasis should be placed on the acquisition of cultural benefit from studying the philosophy of classical and religious thinkers. This form of education was thought to be a fit preparation for entering academia or the professions and so was only accessible to an elite few. A development of this view to a more modern form of liberalism in education embraced the importance of developing the capacity to lead an independent life. Thus the classics were to be studied but, rather than purely for their own sake, they were to provide models to encourage the capacity for developing autonomy of thought. Radical liberalism, like modern liberalism, aims to develop the individual as an autonomous thinker but by challenging the established norms of society through the educational process rather than by acquiescing to cultural expectations.

Although vocational education can be seen purely as a means of providing training for specific jobs, this is an instrumental view and there are more complex interpretations of its purposes. In more recent years a liberal attitude to vocational education has developed whereby those aims of modern liberalism that aspire to develop autonomous thinkers who can realise their own aims and aspirations can fit comfortably with vocational aims of preparing for particular roles in society. There are also more radical approaches to vocational education that, like radical liberalism, would encourage individuals to interact with the development of the processes of society by using their vocational preparation to define and evolve their roles as active citizens (Winch: 2000:28).

Winch goes on to provide a justification of the vocational conception of education, and liberal vocationalism in particular, in the following terms:

> (Liberal vocationalism) is advocated as an important strand in the educational philosophy of developed industrial countries for a number of reasons. First, because vocationalism corresponds to the interests, both perceived and real, of large numbers of young people, of government and sections of business. Second,

because it is a more effective way than modern liberalism of meeting liberal aims for some people. Third, because it can be pursued alongside modern liberal and liberal civic education to give a balanced range of opportunities which reflect the diversity of ability and interest that exist in any modern pluralist society. Finally, subscribing to it entails economic changes that are not only appropriate to an advanced society concerned with material prosperity, but offer new possibilities to a large majority of those who see their aims in life largely defined in terms of work. (Winch, 2000:31)

The liberal vocationalist is likely to encourage self-realisation and choice in individuals but unlike the modern liberalist, who sees a breadth of options available for selection, the liberal vocationalist will confine those choices within the practical possibilities of what society has to offer and considers worth pursuing within the current societal constraint of having to find a way of earning a living. Thus the liberal vocationalist advocates preparation for future employment but in such a way as to encourage choice and priming for some self-direction once in that employment.

Judith Suissa (2006:103) explains the assertion of anarchist thinkers that a divide existing between manual work and mental work is thanks to the capitalist system and its impact on differences in social status. Aware of the impact on society of growing industrialisation in the early twentieth century these thinkers considered the role of education for the large numbers of future industrial workers, described by Smith (1983:25) and quoted thus in Suissa (2006):

> An education that was divorced from the world of work, that is, an education that was entirely bookish or grammar-schoolish in conception, was valueless from the point of view of ordinary working-class children. Of course, an education that went too far in the other direction, which brought up children merely to be fodder for factories, was equally unacceptable. What was required was an education which would equip a child for the work-place but would also give him a degree of independence in the labour market. (Smith, quoted in Suissa, 2006:105)

4.1.3 Vocational/Academic Tensions

The basic successes of the early Industrial Revolution grew from the ingenuity and inventiveness of craftsmen and artisans rather than from those with formal education. A

concern to provide the 'lower orders' with enough education to make them god-fearing and willing workers was the driving force for education at the end of the nineteenth century in England. Roderick and Stephens (1978) suggest that this was why technical education came to be considered suitable for the working or artisan classes, but not for others:

> . . . technical education from its origins became associated in the public mind with the education of the artisan, the philosophy of middle-class education meanwhile being firmly based on the principles of Christian religion and on a knowledge of classics. (Roderick & Stephens, 1978:3)

It was into the early twentieth century before government intervention to provide specifically scientific and technically based education was recognised as necessary to restore British prowess in industrial manufacturing in the face of German success, which was believed to have been built on scientific education for the masses (Roderick & Stephens, 1978:10). Schools in the UK, however, were deeply entrenched in academic subject-related curricula that were highly regarded and considered as benchmarks for other countries.

The economic and related vocational functions of education were given new impetus when the UK government of James Callaghan highlighted them and particularly when Callaghan, as Prime Minister, turned the spotlight on the gap in communication between education and industry and placed new emphasis on education as a key factor in political and economic issues. He highlighted the academic emphases of education in contrast to the shortages of skilled workers affecting business and industry. Even science students were pursuing academic careers rather than taking their expertise into industry.

> There seems to be a need for more technological bias in science teaching that will lead towards practical applications in industry rather than towards academic studies . . . . To what extent are these deficiencies the result of insufficient co-ordination between schools and industry? (Callaghan, 1976:2)

The high levels of unemployment being experienced in the early and mid nineteen seventies were being at least partly blamed on education and a lack of communication about what education and industry could do for each other. Schools, particularly secondary schools, seemed reluctant to train pupils to meet the needs of wealth producing industry, hence the

rise in unemployment, the argument went, because many young people were not employable due to lack of the basic skills required for the jobs that were available to those without formal qualifications. Just prior to, and at the time of Callaghan's speech, Conservatives in opposition supported industry comment on their dissatisfaction with progressive methods used by teachers, the perceived 'dumbing-down' caused by comprehensive schools and the poor levels of acquisition of basic skills, namely the traditional '3 Rs', being identified by potential employers in those leaving school at the earliest opportunity. (Chitty, 2004:10) The media helped to fuel these claims and so Labour ministers and Prime Minister Callaghan, driven by a desire to restore public confidence in the, by then much pilloried and maligned state system, instigated through memoranda, by addressing the party conference and through the now famous Ruskin College speech, a debate about existing educational trends. Among those issues raised by the Labour Party in 1976, in the Prime Minister's speech and elsewhere, was a call for better articulation between schools and industry that would require more emphasis on vocational education in schools. In practice in England and Wales much emphasis was placed on the notion of enterprise, in its business sense, that was soon to be taken up with stronger emphasis by the Conservative administration that was to come to power later in the same year. The post-war period of welfare-capitalist consensus was about to be shaken up with drives put in place for more central control of the curriculum, greater teacher accountability and direct subordination of education to perceived economic needs (Chitty, 1998:320).

In the early nineteen eighties, perhaps the most significant period of change, a group of politicians and industrialists called the Conservative Modernisers wanted to see technical and vocational subjects being given more prominence in secondary schools and blamed comprehensive schools for "maintaining a rigid distinction between 'high-status' academic knowledge and 'low-status' practical training" (Chitty, 2004:140). This group advocated more attention be paid to the needs of industry and the breaking down of traditional attitudes against practical education that had been fostered by public school education and generally adopted within UK education. Changes in education since the mid 1980s are seen to be:

. . . but reflections of the perennial battles between liberal education and vocational learning - a deeply rooted but unnecessary dichotomy . . .
(Pring, 1995:1)

In fact schools such as the Secondary Modern in England and the Junior Secondary in Scotland provided a watered down curriculum, supplemented by subjects such as woodwork, metalwork and domestic science and described themselves as vocational but in fact they were only implicitly so in that they made clear the expectations of the job futures of their pupils and that these would be in the non- or low-skilled occupations. (Young, 1998:51) The term vocational education has come to be generally associated with lower status alternatives to higher prestige academic education. It is seen as below technical education in a hierarchy of prestige because technicians' jobs are higher status than manual or basic craft jobs. Wolf (2002) speculates that there was little political support for vocational education in the twentieth century because those in a position to make decisions on education saw it as " . . . only for other people's children." (Wolf, 2002:59). Most other European countries developed separate schools for vocational education but in the UK this did not happen. There were different types of secondary school but vocational provision was intended, in theory, to be found in every school. Despite initiatives such as the Technical and Vocational Educational Initiative described later in this Chapter, in practice vocational education gravitated more towards the further education sector. The latter part of the century did see attempts by government to boost the economy by offering a raft of vocational qualifications in attempts to change attitudes and stimulate growth in the number of skilled workers having had a vocational education or training. In Scotland there were to be vocational pathways in the new Higher Still Programme and in England vocational GCSEs were to be offered. These pathways were and are however aimed at the lower achieving youngsters who are not expected to achieve academically so it becomes less likely that politicians would succeed in raising the status and therefore the attraction of vocational courses and qualifications. Wolf (2002:93) however argues that these initiatives have in fact failed to materialise because government failed to change attitudes and therefore uptake has continued to stall.

When a case for vocational education is being advanced, tensions can be provoked with those who would promote an academic approach to education. There is a basic reference to vocation which evokes notions of calling and related ideas of work ethic as opposed to the almost derogatory sense in which vocational education is seen as a less worthy level of educational activity than purely academic pursuits. (Bills, 2004:153) The use of the term vocational in education has in fact drifted away from its original meaning relating to a vocation or calling and is now more closely associated with a practical technical education and the acquisition of work-related skills. Even with this connotation it is often regarded as inferior to academic subject-based education and can be seen as the preserve of less able pupils. Young (1978:53) suggests that the term 'occupational' may be more accurate for describing the approach taken in UK education systems. It can of course be seen as a sound and productive practical alternative for those who wish to opt out of academic study but such an option can also be seen as a barrier to academic progress if aspects of general education are neglected. The academic/vocational divide in UK secondary schools became particularly apparent in the nineteen-eighties when the availability of jobs for those without qualifications sharply diminished. Schools, which were by then mostly comprehensive, had to look to how they could prepare young people for employment. Efforts to 'vocationalise' the curriculum became known as 'pre-vocational' programmes and were to be hugely supported by the Technical and Vocational Education Initiative (TVEI) that was launched in 1983 (Young, 1998:52) (see below). Schools struggled to provide appropriate learning experiences for increased numbers of pupils with little expectation of gaining certification, for whom the historically grounded academic curriculum was of no particular interest or relevance and who had little prospect of finding employment on leaving school. Michael Young makes the following comment on the situation for school subjects in discussions of the English 14 to 19 curriculum:

> School subjects are ways of providing access to concepts and bodies of knowledge that have evolved historically; however, alone or taught as 'ends in themselves', they cannot be the basis for the future. . . . . the 14 - 19 curriculum needs to combine access to subject knowledge with an understanding of the changing nature of work for all students. (Young, 1998:53)

Young wished to see all subjects contributing to pre-vocational preparation for working life

and developed an approach which he suggested for the English 14-19 curriculum that was intended to emphasise the vocational aspects of all areas:

> The approach is based on five principles:
> - The 14-19 curriculum for all students should in part be based on explicit links between school subjects and the changing nature of work.
> - Economic and technological understanding should be part of the core of the 14-19 curriculum for all school students.
> - School subjects should be presented as *bodies of knowledge* to be studied for their own sake and for the concepts they give access to, and as frameworks of understanding which have a history and which can enable students to reflect upon their experience and their future aspirations for learning and work.
> - Debates about the changing nature of work should be at the centre of the 14-19 curriculum for all students and reflected in appropriate ways in the syllabuses of all subjects.
> - Work experience should be an integral and *connective* feature of the 14-19 curriculum of all students. (Young, 1998:57)

Young's approach suggests that we should look to the general curriculum to provide a new relationship between school subjects and understanding of what students will need for the developing world of work. It proposes a bridging of the liberal educational separation between personal and economic ends for education and advocates recognition that young people are nowadays readily exposed to the economic realities of life chances for after school and so require a personal and social development in their education that offers realistic preparation.

> Compared with previous periods, young people of school age experience a far greater density of messages about economic life and work than in the past. The economic recession of the late 1970s and early 1980s and the restructuring of the economy during the second and third Thatcher governments sharpened the popular perception of 'life chances' as students came to see themselves as market-orientated consumers long before they had any idea of what it might be like to be a producer. (Young, 1998:58)

Across Europe there are examples in education systems of different strategies for dealing with the academic/vocational divide. The first is to maintain two tracks for choice, broadening the content within each to strengthen the generic education bases. The second is to make links

between two separate educational tracks by some common courses or an examination system that provides for both. The third example is to have a unified system with academic and vocational aspects mingled. Scotland and England are both pursuing the third option although by different approaches. (Howieson et al, 1997: 6)

4.2 Vocational Education in Scotland

4.2.1 Historical Developments

Preparation for work has long been a feature of education in Scotland. Primary school provision for all was an early example of national commitment to ensuring that young people would acquire the basics of literacy and numeracy with particular emphases on being able to have access to the moral guidance of the Bible and to managing household budgets. Secondary schools were less common and, usually through selection, only available to the children, particularly the boys, of well-to-do families. They consisted of preparation for University or the professions. The impact of two World Wars and advances in communications technology, at least within Western nations, prompted the setting up of systematic economic nationalism (Brown, 2002) and various forms of welfare provision. In the UK, changes were looming in school education due to the twin necessities of tackling the blight of ignorance and the need to tap into the talents of the wider population. The war had reduced the pool of workers and the strictures of a wartime economy coupled with the enormous drain on national resources had altered some of the rigid class distinctions in society, although arguably in Scotland class divisions had never divided society as deeply as in other parts of the UK. Scotland's education system has always been developed separately to that of other parts of the UK and responsibility for policy development has rested with the Scottish Office until being taken up by the devolved Scottish Executive in 1999. Understanding of the development of vocational education in Scotland rests on a number of policy documents that will now be explored.

4.2.2 Post War Curriculum Plans

Shortly after the end of World War II, a curriculum report was published in Scotland that picked up on concerns of the day to make secondary education available to all children and to stimulate curriculum change that would improve conditions for post-war economic and political regeneration. Thus, in the same year that the school leaving age was raised to fifteen years, the Advisory Council on Education in Scotland produced their report on Secondary Education for the Scottish Education Department (SED, 1947), having been nominated in 1943 by the Secretary of State, on behalf of the post-war government. The remit they had been given was to review post-primary education and to make recommendations for future policy. The report gives interesting insights into both the status of secondary education of the day and the aspirations that the Council held for the social and economic benefits to be had from widening participation and broadening the curriculum. It deals with a wide range of issues in relation to its aims for secondary education but is particularly interesting in this thesis because of its inclusion of, and attitude to, vocational education as part of the mainstream curriculum.

The report comments on the 'bookish tradition' of school education and the need to include vocational courses. A more literate and educated nation was the aim and this was to encompass practical training for those who wished it and which was to be included within the structure of the curriculum. The post-war economy was depressed and in need of boosting but the report writers recognised that the nation's real wealth lay in the character and skills of its young people to whom they wished to promote the good life for each individual within an orderly society.

The language of the report is of its time, so the seemingly patronising references to the 'ordinary children' and the expectation that within this group there will be an 'intellectually-able minority' to be cultivated can be seen as arising from the prevailing norms but there was an evident attempt to shift the terminology as can be seen in the following example that sounds similar to policy rhetoric of the present day:

> There must be less store set by knowledge, often irrelevant and antiquated, and more concern to create in the young certain attitudes of mind. (SED, 1947:6)

There was an intention to allow development of craft and technology without neglecting the professional and academic traditions. The school was to be seen as an agent of social change but care was to be taken to ensure that, while encouraging individual freedom and development, the changes should foster conditions that would be 'socially desirable and in general accord with the nation's traditions and ethos.' (p 13, §62)

> This proper concern of the state with the direction of social change will be twofold; first, to see that the schools inculcate those virtues without which democracy cannot survive, and secondly, to be satisfied, especially at a time of great economic stress like the present, that boys and girls are taught the basic skills and cultivate the special aptitudes which will ensure the maximum productivity of the country. (SED, 1947:13)

The writers admit that a primary aim of including pre-vocational and technical training in the curriculum is to bolster economic recovery and survival and generally to improve material standards, but claim that this is not discordant with providing such training to meet the needs of adolescents. Broadening the curriculum for all children required the mainstreaming of vocational courses.

The report puts forward points of view on learning, teaching and curriculum matters that are still being discussed today e.g. the ambition to have one school for all for reasons of social reproduction and equal opportunity and the benefits of moving away from a subject driven curriculum. It was twenty years later that comprehensive education moved the former forward although not in a complete sense and debate continues on whether and how all sections of the school population can be brought together. The latter is currently the subject of debate again in Scotland where the subject-specific nature of the curriculum has become ever more entrenched in secondary schools. New curriculum initiatives are currently raising questions about the structure of the curriculum and there are examples of different arrangements e.g. the *Opening Minds* research carried out by the Royal Society of Arts (RSA,

1999). This initiative is not too dissimilar from the 'activity curriculum or project method' recommended in the 1947 Advisory Report (p 24, §116 to 123), but like most of the examples suggested, despite proclaiming the benefits of the arrangements mooted, the report reneges on promoting them wholeheartedly for adoption as practice due to practical and resourcing issues. Consequently, beyond a widening of provision, much remained unchanged.

There is no attempt in the report to give equal treatment to girls and boys beyond recognising that girls should be provided with the same length of time in full time education but the accepted gender roles of the patriarchal family unit being promoted at the time are reinforced. The Report recommends vocational training in the form of technical education for boys:

> Of high educational value in themselves, Technical Subjects are recommended also by the needs of our country (p 169, § 855)

All girls were to be given regular training in the 'household arts' of cooking, needlework and laundry with some reference to be made to hygiene, domestic expenditure and the care of babies. Again for girls there was provision for Education for Commerce, although the preamble is rather grudging in its admission, thus:

> The essential requirements for a career in business are plain English, facility in calculation, general knowledge and alertness of mind. But custom and the need to enlist the vocational motive compel the provision of some specifically commercial training from 12 to 16, (p 167, §836)

A significant extension of technical education within the secondary school curriculum was thus proposed rather than the establishment of separate technical schools which was what developed in England and elsewhere.

4.2.3 Vocational Education in Junior Secondary Schools

Secondary education continued to develop, divided into two distinct types of school, senior and junior secondaries. The junior secondary schools were themselves of different sorts with some being separate schools, some being attached to primary schools and some being within secondary complexes where the senior and junior divisions were distinctly maintained. A

memorandum published by the Scottish Education Department in 1955 laid out fairly detailed curriculum directives for the junior secondary sector and the place of vocational education of the time can be discerned from its stated aims for the sector. One of the main duties expected of the junior secondary school was " . . .to equip its pupils to enter the employment of their choice with a reasonable chance of success" (SED, 1955:11). This was primarily intended to be a sound general education but also took into account the demands that employment was likely to make and to prepare the pupils to that end by instilling 'sound attitudes towards work', 'the importance of hard work' and awareness of 'the pleasure to be derived from successful work' (p11). The memorandum contained a sound rejection of any ideas of changing the curriculum away from subjects to topics or centres of interest for practical reasons. In the third and final year all subjects were to put more emphasis on tasks that would model those that would be required in working life. Co-operation with local industry was advocated to provide more accurate and relevant information to teachers and to advise industry on what skills and abilities they might reasonably expect from the pupils who would become their employees straight from the junior secondary schools.

The individual subjects of the general curriculum for the junior secondary school included English, Geography, History, Mathematics, Science, Art, Music and Physical Education. The Memorandum justifies the inclusion of each of these subjects as core to a general education and outlines the level prescribed for depth of study in each case. There were recommendations under the heading 'Class Subjects for Backward Classes' (p158) which placed strong emphasis on English and in particular the ability to read with 'sufficient confidence, understanding and interest' to enable the continuation of reading beyond school. Gaelic and Modern Languages were also recommended in line with an act of 1918, in the former case and to allow schools the choice and in the latter to teach a modern language if it was considered appropriate to the pupils' needs.

Vocational education was to be addressed through the inclusion of Technical Subjects, Homecraft and Commercial Subjects in the curriculum. Technical subjects, which were to be

craft based, were to start with modelling and to lead in the later stages to using the tools that men used in work, with opportunities for woodwork, metalwork, technical drawing and mechanics. Homecraft was seen as vital preparation for girls who clearly in 1955 were not expected to aspire to anything beyond running a home and the subject was not even seen as truly vocational but rather a duty by the curriculum designers of the day:

> There are few girls who will not, sooner or later, be called upon to run, or help to run, their own home; the great majority will spend a very large part of their lives in doing so. It is therefore clearly to their advantage and to the ultimate good of the nation as a whole that they should learn to carry out their work in the home efficiently, and find happiness in doing so. (SED, 1955:241)

Sensitivity was advised however for girls who may have wanted to focus on a career before full time homemaking and Commercial Subjects provided opportunities to learn book-keeping, typewriting and shorthand although the provision was small and played down in comparison to the stated benefits of the subjects for general education. In some geographical areas of Scotland the vocational subjects of Rural Studies and Nautical Studies were recommended if there was a large local dependence on rural or sea-faring employment and consequently careers that many boys from junior secondary education would be likely to follow.

This memorandum indicates the emphasis placed upon vocational education in this alternative and less extensive form of secondary education, that by its existence further entrenched the divisions between vocational and academic education.

4.2.4 From School To Further Education

During the nineteen fifties and sixties, secondary education in Scotland continued to sort young people into two groups, namely those destined for certification and a five or six year education in a senior secondary school as distinct from those who would follow three years of non-certificate courses in a junior secondary school. The 1947 report had suggested that there might be some technical and commercial courses available in both sorts of school but in practice the truly vocational courses only developed significantly in the junior secondary schools with the senior secondaries overwhelmingly concentrating on the traditional or

'academic' disciplines in preparation for higher education or the professions. Government support had also allowed further education colleges to develop vocational courses in connection with apprenticeships in various industries where the needs of industry and commerce had a strong influence on the content of courses. The report entitled *From School to Further Education* (SED, 1963), which came to be known as the Brunton Report, after the Senior Chief Inspector who chaired the group, is the report of a working party that was set up to inform the Secretary of State, investigate the types of vocational education on offer in secondary schools and in further education and explore ways of co-ordinating the provision for the young people who were candidates for such courses and who invariably were those not selected for senior secondary schools. Despite a belief that the success of further education courses depended upon the preparation received in school education, the working party found that these two educational environments had been allowed to develop quite independently and thus take on different complexions rather than collaborating on vocational provision. The report indicates that, at the time that it was written, 65% of young people were dependent upon the junior secondary schools for their post primary education and that for many their background was 'often not conducive to success' (p9, §14). While commenting upon the possible reasons for this disaffection on moving to junior secondary schools, such as failure in primary school leading to lack of effort to succeed or outright antagonism to school, the report writers then move to rather sweeping generalisations about the learning preferences and prospects of this group of pupils. One comment here seems particularly relevant, however, and that is that young people placed in courses where they feel less than motivated and that what they are doing lacks work related relevance, are likely to be looking longingly to being out of school and able to get on with working and earning for real and it is suggested that the schools should be making use of both this aspiration and the related need for relevant connection with the work environment. There is at this point recognition of the value of inter-agency work recognising the desirability of harmonious working with the school, home, agents of youth employment, local industry and further education.

It appears from the Report that there was a genuine desire to provide the most relevant form

of school education for those young people who would move into industrial, commercial and occupations generally not requiring a school qualification for entry. It is equally clear that the demands of employers in these occupations for young people, suited to their expanding aspirations and position within society and the national economy, was a determining factor in the shaping of policy regarding school education and the nature of the vocational curriculum. The timing of the Brunton Report coincided with a period of immense change particularly in industrial workplaces. Advancing technology was bringing more automation and technical tasks into manufacturing with a consequent increase in skilled and semi-skilled jobs available and different requirements arising for potential new recruits, and education needed to take this into account in vocational courses if schools were not to be dealing with obsolete practices. An expansion of provision in the further education sector was advised. It was also seen as important that the development of schemes of industrial training to be undertaken in colleges, perhaps through release schemes for those already employed in industry or commerce, should be undertaken jointly with corresponding development of complementary technical and general education in schools.

4.2.5 The Technical and Vocational Education Initiative

The Technical and Vocational Educational Initiative was an educational scheme that was first piloted in schools in 1987, extended in 1988 to all schools within local authority control and then run as a national programme until 1997. The Initiative was set up and funded by central government with the Manpower Services Commission charged with the task of offering an enhanced educational experience to young people in the 14 to 18 age group. There were three main areas targeted in the strategy: to encourage the personal and social development of each individual; to bring about an increase in the vocational relevance of the curriculum; and, as it arrived in the early days of computer technology appearing in schools, it also sought to support the introduction and appropriate use of new technology in the curriculum.

The Scottish Office Education Department was also keen to derive benefit from the TVEI

scheme for Scottish youngsters, particularly since the financial resources that could be bid for were very substantial and coming externally to the Local Education Authorities from the Manpower Services Commission. After running a pilot in schools and colleges across the country the extension scheme was put in place to open up opportunities to bid for funding to all schools and colleges run by local authorities. It was also realised that pursuing the aims of TVEI could assist with and support both the curriculum and certification arrangements already in place including those of the then recently introduced Standard Grade arrangements for 14 to 16 year olds. Indeed it was expected that TVEI programmes would lead to National Qualifications in the certification that was in use at that time. It was intended as an enhancement to existing curricula. The initiative was expected to enrich the learning experiences of young people in a number of ways. First, they were to be given more opportunities to develop aspects related to personal and social development such as initiative, motivation, enterprise and problem solving. Second, they were to become accustomed to using their skills and knowledge to solve the kind of real-world and practical problems that they would meet at work and in adult life. Third, they were to benefit from direct contact and planned work experience with local employers to help them to be better prepared for the world of work. Fourth, there were to be increased opportunities to use what was then termed as 'new' technology through their studies. Fifth, there was to be equal opportunity available to young people of all ethnic origins and both sexes. Submissions to the initiative for funding had to show evidence of how these aspects would be addressed in the projects devised along with strategies for evaluating outcomes, providing staff development and managing resources.

An evaluation of TVEI conducted by the Scottish Office Education and Industry Department (SOEID, 1998:1) claimed that Scottish schools received approximately £100 million in funding for activities from TVEI. The same report indicated that TVEI had achieved success against each of the five stated objectives for its review. Work-orientated learning was recognised by schools and colleges and had become integral to a "'change in climate' and 'cultural shift' achieved through more focused and relevant provision "(p3). TVEI was

recognised as having brought about 'dramatic changes' in the provision of modern languages, information technology, qualifications, wider curricular choice, flexible learning, technological activities and applications and key curricular content in conjunction with ongoing support from the Scottish Consultative Council on the Curriculum (SCCC) who provided curricular frameworks for all stages in the secondary school curriculum. TVEI was credited in the review for successfully spreading the welcome and popular practice of providing one week of work experience for all S4 students. A practice that subsequently became the norm in all secondary schools. The use of active learning methods was received as 'one of the more fundamental and lasting aspects of TVEI'. Implicit attitudes, approaches and methodologies for enabling pupils to be 'effective, enterprising and capable of work' were seen to have been made explicit through TVEI programmes. Personal and Social Development, Guidance and Religious Education Programmes also benefited from TVEI support as schools reviewed and expanded their provision in support of the general principles being applied and that contributed to the individual action plans and National Records of Achievement along with certification and experiential evidence. The review appears to indicate that major parts of the initiative were responsible for re-invigorating many teachers, refreshing their practices and repertoire of approaches and encouraging innovative uses of resources, particularly in the uses of what was at that time rather new technology.

4.2.6 Vocational Education in Higher Still

The curriculum in Scottish schools was significantly updated in the nineteen eighties with the introduction of the Standard Grade Curriculum for the third and fourth years of secondary education and in the early nineteen nineties with the 5-14 Curriculum Guidelines for primary and the first two years of secondary schools. With these reforms underway the only part of the curriculum still to be reviewed was that for the post sixteen, post compulsory education undertaken in years five and six of secondary schooling. Apart from efforts to rationalise the examination frameworks to provide access to both traditional examinations of Higher Grade and Certificate of Sixth Year Studies (CSYS) as well as the more vocationally based modules

of the Scottish Vocational Education Council (SCOTVEC) that were referred to as the National Certificate, this part of the curriculum had remained almost unchanged for approaching forty years, indeed the Higher examinations had existed since 1888. There were serious concerns about the suitability of this provision as a follow on to the revised curricula for earlier stages and particularly that of Standard Grade which had introduced both newer curricular approaches and a form of criterion-referenced assessment based on grade-related criteria. The Howie Committee was set up, under the chairmanship of Professor John Howie, with a remit to review the aims and purposes of courses, assessment and certification in the fifth and sixth years of secondary education, to consider the structures and assessments that might best suit the needs of post sixteen pupils in secondary schools and to make recommendations for necessary changes. The committee duly reported their findings and recommendations (Howie, 1992) and although the first part was widely welcomed in subsequent consultations as a clear review and statement of the positive and negative aspects of the status quo, the recommendations of the committee were not taken up as they were proposed but amended to the framework that was ultimately devised under the name of Higher Still (SOEID, 1994).

The Howie Committee had identified several weaknesses that had developed in the system, mostly to do with inadequate preparation time for higher grade examinations and irregular rates of progression in the earlier secondary stages. Crucially the Committee claimed that there had been no coherent provision for vocational education. The review summed up the situation that they had found for vocational education thus:

> The Committee believes that academic and vocational education are both fully justified in themselves and are equally valid and that the frequently perceived distinction between them is false. So-called academic subjects can provide the thorough grounding in core skills and specialist knowledge upon which subsequent vocational training can be built. Indeed, many employers believe that a sound general education is a better preparation for work than some kinds of vocational education. Many degrees normally classified as academic such as medicine, law and business studies have very explicit vocational purposes. While much 'academic' learning has clear vocational relevance, the converse is also true. Soundly-conceived vocational education can promote both high level

communication and cognitive skills and rounded personal development as surely
as its academic counterpart. Perceptions which view vocational education as
intellectually limited or academic education as abstract and useless do great harm
to both. (SOED,1992:37)

The Higher Still curriculum arrangements which emerged after consultation on The Howie
Committee's proposals consisted of different examination structures that allowed for
certification at all levels and included General Scottish Vocational Qualifications (GSVQs) and
progression to the more occupationally specific Scottish Vocational Qualifications (SVQs)
within the one framework of post-sixteen pathways. Thus the new Higher Still arrangements
took up the Howie Committee's proposals for the closer articulation of academic and
vocational study

One of the aims of the Higher Still programme was to break down barriers between academic
and vocational education so that they were to have parity of esteem and Lindsay Paterson
(2003:25) has suggested that this may now be leading to a more general blurring of the
distinction within Scottish education. There was an attempt to unify academic and vocational
learning in search of a high skill base within the Scottish economy which required all workers
to have a high level of general education in preference to ability to practise only within limited
areas of expertise. (Howieson et al, 1997). Raffe (1997:802) however concludes that the new
programmes have not yet addressed the issues, claiming that 'vocational education is weak and
is still affected by academic drift'. He describes a finding that:

Employers and university selectors favour students with academic qualifications
because they believe that the most able (school) students choose academic rather
than vocational programmes (Raffe, 2003:798)

and goes on to comment that although our country has achieved parity of esteem between
general and vocational educational choices at the secondary level, vocational education
continues to have lower status in Scotland than in other parts of the UK. This is despite the
longer tradition of vocational education in Scotland and a less well-defined social class
hierarchy to influence choices and perceptions of inequality in attainment.

4.3 Current Status of Vocational Education in Scotland

At around the same time that both the Howie Committee and the Higher Still Development Unit were looking to other countries, in particular to Europe, for models of academic/vocational integration, Malcolm Skilbeck of the Organisation for Economic Co-operation and Development (OECD) was expressing views about the relative status and importance of vocational and academic education:

> If we are to bring about the long overdue re-alignment of vocational education and economic, social and cultural need, there is a cultural task of gaining understanding for and acceptance of the idea that the traditional distinction between 'general', 'academic' and 'vocational' education is false and dangerously misleading policy. From the time he or she enters pre-school, to the time of graduation from college or university, the student is . . . or should be . . . engaged in learnings which have actual or potential value for work, employment and a vocation defined as a specific career. Conversely, vocational learnings are part of a wider set which relate to other aspects of personal and social life which have their own values that cannot be submerged in a relentless utilitarianism. (Skilbeck, 1993)

The historical tensions between vocational and academic pathways at school level seem to be proving difficult to remove. In England, the Government is introducing City Technology Colleges to provide practical alternative choices for secondary education but in Scotland the preference of the Scottish Executive Education Department (SEED) has been to maintain comprehensive schools as the state provision of education. This however does allow for some specialisation in schools that wish to become centres of excellence in particular areas of the curriculum. For some years there have been secondary schools with specialist centres for the Arts in Music and in Dance and in recent times schools have been making cases for special status as centres of excellence in a range of other areas of the curriculum, including technical education and enterprise education, allowing a more vocational orientation of the curriculum along with the standard general education in these particular schools. However, the main way in which Scottish education attempts to address wider spread opportunities for vocational education is through the general curriculum. Guidelines are currently being drawn up for a revised curriculum for ages 3 to 18 in Scotland entitled A Curriculum for Excellence (ACE)

which has stated aims to enable young people to develop as successful learners, confident individuals, responsible citizens and effective contributors.

One of the most popular ways of linking education and work and delivering vocational education, which invariably is seen very positively by school pupils, is the opportunity to have work experience. This is now a firmly established feature of secondary education in Scotland, usually arranged in the fourth year for all pupils. There are, however, issues related to work experience that present possible dilemmas for teachers. Most pupils report that they have greatly enjoyed the experience and this includes many who are otherwise disinterested in the school curriculum or even quite disaffected from school life. It can also be seen by pupils as being something quite separate and apart from their usual engagement with the curriculum with very few students able to make connections between school subjects and what is experienced on a work placement (Boyes et al, 2003: 304). Thus the pupils' positive responses to work experience can reinforce their negative feelings for other aspects of school. They can see it as so different to other school experiences that it is not recognised as a regular part of their education or of having any links to the subject content presented in classrooms. There are issues here for teachers in supporting pupils to see the relevance of school subjects to work related aims of education. For some subject specialist teachers, there may be a resistance to be overcome in relating their area's subject knowledge to work and economic activity (Young, 1998:59). Work experience can be located in the curriculum for secondary pupils through modules that formalise the experience by providing proposed learning outcomes, assessment strategies and certificated recognition of achievement.

It is only in recent times and through looking ahead to the introduction of the proposed new curriculum for Scotland that vocational education has become more proactive in anticipating the needs of young people for skills and attitudes in preparation for participation in a knowledge economy (see Chapter 7). A report of the Curriculum Review Group preparing the ground for revamping the curriculum in Scotland for all school education from age three to eighteen, outlined plans for introducing *A Curriculum for Excellence* (SEED, 2004) (For more

detail see Chapters 8,9 & 10). Among the outcomes listed by the Minister and Deputy Minister for Education and Young People at the time, in the forward to the document, was an intention to provide:

> . . . more skills-for-work options for young people, robustly assessed and helping them to progress into further qualifications for work (SEED, 2004:2)

To support this outcome, one of the listed issues to be addressed by curriculum reviewers was:

> . . . to have introduced new skills-for work courses for 14 to 16 year olds to broaden the range of educational experience for young people and ensure that they get appropriate recognition for achievements in developing work-related and other skills (SEED, 2004:2)

Progress has been rapid in the development of skills-for-work and vocational learning with courses currently being piloted (SEED, 2005a:1) that are to be credited within the same framework as existing courses within Higher Still arrangements and at all levels up to Higher. The courses devised include: Construction & Engineering; Construction Crafts; Early Education and Childcare; Sport & Recreation; Hairdressing; Rural Skills; Financial Services; Engineering; Hospitality & Catering; Health & Social Care. The curriculum reviewers have taken into account several key points and tried to address them in the design of the courses available so far. These are:

- We know that the general public, parents and employers all value vocational learning and wish to see it given greater prominence within our system,
- Vocational courses will not be an easy option – local authorities that run vocational programmes assess pupils' suitability with rigorous selection systems.
- These courses will broaden educational experience – we want all pupils to consider vocational courses.
- Skills-for-Work courses will provide opportunities for young people to develop a range of generic skills which will enhance employability. (SEED, 2005a:1)

It is clear from these statements that there is an intention to provide vocational education options for all school pupils and also that it is planned as an integral part of the overall curriculum and experience rather than as a separate track or even institution for vocational programmes as advocated elsewhere. This is typical of Scottish aspirations to be inclusive and at the same time consistent with historic and cultural educational ideals. The plan to give vocational education and qualifications parity of esteem with other parts of general education, including the so called 'academic' courses, has been tried before and suffered drift from original intentions back to a divisive and lowly regarded position for vocational tracks. The current determination, however, to shift expectations and the long held perceptions of vocational education as inferior, by placing it among the general aims of education for all school pupils and by devising courses that have relevance and challenge appear to provide the best chance yet of positively repositioning vocational education where it should be as an integral part of the general education available to all.

This exploration of the status of vocational education, and the way in which it has been treated in Scottish education since the mid-twentieth century, contributes to the historical study of work-related purposes of education encouraged by questions 3, 4 and 7 in Chapter 1. It is evident that social and economic shifts prompted by technological advances have broadened the context for work-related purposes for education in the late twentieth century when traditional industries have declined and given way to new knowledge- and information-based industries. Resulting new relationships between education and work in a post-industrial economy will be explored in Chapter 5.

Chapter 5 - Conceptualising Work in the Post-Industrial Economy

Despite some unpleasant working conditions and practices and the poor social environments that prevailed for many of the working class population in the industrial period, developments in mass production began to provide most people with steady jobs and wages leading to better standards of living. Marketing strategies increased consumerism which was encouraged in order to develop markets for the commodities that were being produced and what had previously been luxury items, such as household appliances, some furnishings, personal possessions and eventually even family cars, came to be seen as social necessities and indicators of success. Standards of living improved for many working and middle class families while the owners of the production processes made huge profits. Developments in technology that initially were intended to help to speed up production began to increase in sophistication so that automation, and eventually computer controlled automation, came to replace much of the need for human activity in all sorts of work places. Society was moving on from its industrial phase. This chapter seeks out the differences for workers, for society in general and the implications for education of the shift from industrial to post-industrial society. The writings of three authors, Jeremy Rifkin, André Gorz and Anthony Giddens, are considered. Each has analysed shifting job patterns and made predictions about how the concept of work might have been about to develop in new technological and globally connected environments. The consequences of these developments for education are explored in this chapter's context of the era of post-industrial society.

5.1 Post Industrial Society

> The concept of the post-industrial society deals primarily with changes *in the social structure*, the way in which the economy is being transferred and the occupational system reworked, and with the new relations between theory and empiricism, particularly science and technology. (Bell, 1974:13)

The term post-industrial is largely a generalisation for the period commencing with the decline of the industrial power of nation states. A new type of society from that of industrial society has been emerging although some of the characteristics developed in both socialist and

capitalist industrial societies have been retained. (Touraine, 1974:3)   According to Eisenstadt and Ahimeir (1985:3), the predominant characteristics of industrial society include:

> . . .the importance of services in relation to productive industries; a significant rise in the standard of education and economic well-being; the growing emphasis on technological and theoretical know-how; and the prominence of so-called post-bourgeois values (the quality of life and humanist ideals), in contrast to the Protestant ethics of work and morality. (Eisenstaddt and Ahimeir, 1985:3)

From the nineteen-sixties and into the nineteen-seventies, sociologists coined the term post-industrial society, led particularly by Harvard-based sociologist Daniel Bell (Kumar, 1995:3, 1978:185).   In his text *The Coming of Post-Industrial Society* (1974), Bell specified five dimensions that he used to underpin its meaning. These are:

- the shift from a product-based to a service-based economy;
- the pre-eminence of the professional and technical classes;
- the vastly increased importance of theoretical knowledge as the driver of innovation and policy formation;
- technology as the controlling factor for assessment and forward planning, and;
- the creation of a new 'intellectual technology' for decision making purposes.

A service economy has a larger proportion of its jobs of a sort that sustain and provide for the needs of society. Typical jobs in this sector can be grouped as personal services; business services; transportation, communication and utilities services; and health, education, research and government services. All of these areas of jobs have long contributed to the functioning of society but it is the rate of growth, particularly in the last group, that is characteristic of post-industrial society, meriting being listed as Bell's first distinguishing dimension. The second dimension, change in the nature of occupations, is another defining factor of post-industrial society. " . . . occupation is the most important determinant of class stratification in the society" (Bell, 1974:15), and the shift to greater numbers of 'white collar' workers has been increasing. Jobs that require education and some form of qualification have increased in number with the most dramatic rise to be seen in the growth rates of scientists and engineers.

The expansion of theoretical knowledge is Bell's third major defining principle of post-industrial society. The increase in knowledge is exponential but it is the way in which it is managed and directed into systems for understanding research and development that gives it its centrality of importance.

> Industrial society is the co-ordination of machines and men for the production of goods. Post-industrial society is organized around knowledge, for the purpose of social control and the directing of innovation and change; (Bell, 1974:20)

In industrial society, economic growth took place in response to efforts to increase capital and without regard to the consequences, for example to the environment, or long term impact on society, in what Bell describes as single-order effects. In post-industrial society there is more technological ability, Bell's fourth dimension, to plan ahead and to adapt the nature of change to have less dramatic (at least perhaps in ecological/environmental terms) impact. It is possible to use technology to forecast the effects of change and also to seek alternative courses of action, if there is the political will to implement such approaches. The fifth component is what Bell calls 'intellectual technology'. In post-industrial society we have the ability to use technology to deal with complex problems that are multi-faceted and beyond the scope of intuitive analysis. It is possible to use computer modelling to predict the likely outcomes of actions, both in manufacturing and in virtual production and to forecast implications for economic and social benefit. The new area of risk management is built on this type of technology and examines systems for complex consequences that would not be apparent if analysis were dependent upon intuitive judgement. A large number of economic and financial transactions are built on such technology and operate in futures scenarios.

The nature of work in post-industrial society is hugely different to that of either the pre-industrial or industrial eras.

> Pre-industrial and industrial-era work built on the relationship of people with nature and with machines. Post-industrial work, in contrast, has become primarily a relationship between persons (Bills, 2004:107)

Alain Touraine (1974) used the term 'programmed societies' for post-industrial or

technocratic societies to reflect the nature of prevalent production methods and the related sorts of economic activity.

> Growth results from a whole complex of social factors, not just from the accumulation of capital. Nowadays, it depends much more directly than ever before on knowledge, and hence on the capacity of society to call forth creativity. (Touraine, 1974: 5)

Another early user of the term 'post-industrial', Touraine interpreted the changes in production techniques that he was witnessing as representing an example of alienation. He explained however that the concept of alienation is not as simple in post-industrial society as that of workers being exploited by the owners of capital in the way that Marx had proposed in industrial society (see Chapter 3). Workers do not have power over the means of production as was the case in the earlier age but Touraine believes that most workers accept their relationship to their productive power because they have bought into the situation. They want to be consumers and have thus become part of a more fragmented society where the modern feature of alienation is a conflict between the central organisers of capital and society and those who only have dependent participation.

> The principal opposition between these two great classes or groups of classes does not result from the fact that one possesses wealth or property and the other one does not. It comes about because the dominant classes dispose of knowledge and control *information*. Work comes to be less and less defined as a personal contribution and more as a role within a system of communications and social relations. The one who controls exerts influence on the systems of social relations in the name of their needs; the one who is controlled constantly affirms his existence, not as a member of an organisation, element of the production process, or subject of a state, but as an autonomous unit whose personality does not coincide with any of his roles. This is the reason – in our eyes justified – why the idea of *alienation* is so widespread. We are leaving a society of exploitation and entering a society of alienation. (Touraine, 1974: 61)

Masuda (1990) used the term Information Society to conceptualise the period following the Industrial Society, which is characterised by the development of 'computer-communications technology'. As the steam engine was the innovative force of industrialised society, both substituting for and amplifying physical labour, computer technology characterises the post-

Figure 7

		Industrial Society	Information Society
Innovational technology	Core	Steam engine (power)	Computer (memory, computation, control)
	Basic function	Replacement, amplification of physical labour	Replacement, amplification of mental labour
	Productive Power	Material productive power (increase in per capita production)	Information productive power (increase in optimal action-selection capabilities)
Socio-economic structure	Products	Useful goods and services	Information, technology, knowledge
	Production centre	Modern factory (machinery, equipment)	Information utility (information networks, data banks)
	Market	New world, colonies, consumer purchasing power	Increase in knowledge frontiers, information space
	Leading industries	Manufacturing industries (machinery industry, chemical industry)	Intellectual industries (information industry, knowledge industry)
	Industrial structure	Primary, secondary, tertiary industries	Matrix industrial structure (primary, secondary, tertiary. Quaternary/systems industries)
	Economic structure	Commodity economy (division of labour, separation of production and consumption)	Synergetic economy (joint production and shared utilization)
	Socio-economic principle	Law of price (equilibrium of supply and demand)	Law of goals (principle of synergetic feed forward)
	Socio-economic subject	Enterprise (private enterprise, public enterprise, third sector)	Voluntary communities (local and informational communities)
	Socio-economic system	Private ownership of capital, free competition, profit maximization	Infrastructure, principle of synergy, precedence of social benefit
	Form of society	Class society (centralized power, classes, control)	Functional society (multi-centre, function, autonomy)
	National goal	GNW (gross national welfare)	GNS (gross national satisfaction)
	Form of government	Parliamentary democracy	Participatory democracy
	Force of social change	Labour movements, strikes	Citizens' movements, litigation
	Social problems	Unemployment, war, fascism	Future shock, terror, invasion of privacy
	Most advanced stage	High mass consumption	High mass knowledge creation
Values	Value standards	Material values (satisfaction of physiological needs)	Time-value (satisfaction of goal achievement needs)
	Ethical standards	Fundamental human rights, humanity	Self-discipline, social contribution
	Spirit of the times	Renaissance (human liberation	Globalism (symbiosis of man and nature)

Figure 7. Pattern comparison of industrial society and the information society. Yoneji Masuda (1990:6/7)

industrial or information society, with information technology both substituting for and amplifying human mental work. Masuda lists the consequent developments in each of the two stages in society and juxtaposes aspects of the respective compositions. (see Figure 7)

In post-industrial society, countries have to operate in a climate of global trade and capital mobility that means competing for industry and jobs in a global labour market. Gøsta Esping-Anderson, (1999:102) believes that the facts point to technological change as the reason for a greatly reduced demand for less qualified workers, raised numbers of returnees or 'stay-ons' for education and the marginalisation of the low-skilled or less experienced.

> Golden age capitalism could absorb masses of low-skilled workers as simple assembly line production, churning out mass-production goods for which there was massive demand. It is these kinds of jobs that are rapidly disappearing within the advanced economies and, as we know, virtually all *net* new job growth will have to come from services. (Esping-Anderson, 1999: 103)

5.2 Writers on the Concept of Work in Post-Industrial Society

Many social theorists have wrangled with the implications for workers of these massive changes in the nature of work and major challenges to perceptions about workers' relationships with their work. The observations and theories of three influential writers on contemporary social, economic and political issues that have relevance for our concept of work are offered for consideration. These writers - Jeremy Rifkin, André Gorz and Anthony Giddens - are selected because they have comment to make about the ways in which society, and in particular the concept of work in a post-industrial economy, is changing, and offer ways forward for organising the future condition of society. Educators and education policy makers cannot afford to ignore the societal changes that are commented upon by such writers and the possible implications for education of their predicted scenarios. The first of these writers, Jeremy Rifkin, suggests the need to shift totally away from previous notions of the job because he predicts that it will no longer exist in the form which has long been familiar: an end to work as we know it. The second of the selected writers, André Gorz, suggests that we

should re-organise our thinking about work and find new ways of defining and sharing work to the benefit of all: reclaiming work in a more socially acceptable way. The third of these writers, Anthony Giddens, accepts that there are changes occurring in the nature of work and suggests that individuals should acquire a portfolio of skills which can be used as needed and can help workers to be prepared for the impact of globalisation: striving for social inclusion. All three envisage, in their distinctive ways, that the route forward demands a shift to a new kind of society - a 'civil society' which can embrace the virtues hitherto suppressed by state power and by self-interest.

5.2.1 Rifkin: The End of Work

An American writer on the changing nature of work and the possible scenarios for dealing with its evolution is Jeremy Rifkin, a political economist who specialises in urban and environmental issues. He writes extensively on the condition of society from an United States perspective. Rifkin's work therefore views the world through the lens of US political, economic and social conditions, but is worth attention since the factors shaping US society tend to influence UK and other European societies soon after. His book on *The End of Work: The Decline of the Global Labor Force and the Dawn of the Post Market Era* (Rifkin, 1995), illustrates the ways in which economic transformations in the United States have been devastating to familiar work practices across a wide range of employment activity for the working population. He provides a summary of the impact of the new technological revolution and explains how the mechanisms, which were intended to improve efficiency and provide opportunities for more leisure, have also had the effect of reducing wages and making livelihoods uncertain. He does, however, predict that new types of employment can be created. He predicts a "near-workerless, information society" as a final stage of a "great shift in economic paradigms". Utopians have argued that science and technology could ultimately free everyone from work and open up new leisure opportunities, but in reality sharing of resources and the financial freedom to enjoy leisure time are difficult to achieve:

> With near workerless factories and virtual companies already looming on the horizon, every nation will have to grapple with the question of what to do with the millions of young people whose labor will be needed less, or not at all, in an ever more automated global economy. (Rifkin, 1997:31)

Rifkin suggests empowerment for those whose expected realms of employment no longer exist both through government help and by organisation into communities of self-interest. Voluntary work and community work would have to be given more recognition:

> The opportunity now exists to create millions of new jobs in the Third Sector - the civil society. (Rifkin, 1995:294)

His belief in the necessity of making more use of the civil sector and providing more scope for its development leads Rifkin to include it in a tri-partite model for re-envisioning work. Instead of a two-sided divide in society which has the free market at one end and government provided support at the other, he uses the analogy of a three legged-stool with the three legs representing market capital, public capital and the inclusion of a third option of social capital that represents the web of personal relationships that make up the social infrastructure (Rifkin, 1995:294). To support this realignment of a social contract and new meanings of work, two specific courses of action are offered: firstly that the gains from productivity, brought about by the improved efficiencies of new technology, should be dispersed throughout the economy to shorten the working week and allow steady increases in remuneration; secondly, non market or service economy activity should receive greater emphasis with new roles and responsibilities for workers outside the traditional labour market.

These changes in approach were suggested by Rifkin in response to the changing nature of work and he recognised that consequent changes in education would be required to prepare young people more appropriately for different roles in society and in whatever sector of employment they might ultimately work in. He advocated more emphasis on civil education in American schools to engender in students a sense of personal responsibility and accountability, to foster self-esteem and leadership, to allow the growth and flourishing of

feelings of empathy for others and to give a sense of well being and belonging, all of which should add meaning to life (Rifkin, 1998:80).

5.2.2 Gorz: Work Under New Socialism

Another leading social and political thinker, who has contributed to debates about the future of work, and writes from a European perspective, is French social critic André Gorz. He has written imaginatively on society's relationship with work from a far left perspective and has an utopian view of a possible alternative society. In his book, *Reclaiming Work: Beyond the Wage-Based Society*, (1999), Gorz argues that 'work-based society', depending on the popular understandings of what work means to society, no longer exists. That we should accept this shift and move on:

> 'Work' must lose its centrality in the minds, thoughts and imaginations of everyone. We must learn to see it differently: no longer as something we have - or do not have - but as *what we do*. We must be bold enough to regain control of the work we do. (Gorz, 1999:1)

Gorz offers possible alternative scenarios: either the work that we do as wage earning activity can be integrated into the wider range of activities in which we engage, or the wider range of our leisure, voluntary or creative activity can become part of a wider definition of work. One or other of these shifts in our accepted understanding of work will be necessary if we are to move beyond a wage-based society, which is no longer sustainable, and is in any case a social construct which has been built up within an industrial age which itself has moved on. Our society, and others which have developed following the influence of Fordism, are disintegrating without managing to reinvent themselves in any meaningful form. Meanwhile, the extra wealth that has been created has been appropriated by a small, but dominant, group of successful multinational entrepreneurs.

Gorz suggests that creating new work is not the answer, but to distribute socially necessary work more equitably and therefore to distribute socially produced wealth. This, he argues, could be the basis of a new, more civilised, society with which to replace a faltering wage-

based society. He outlines goals as exemplars and these are abbreviated in the following:

- People's minds and imaginations need to be freed up to cast off assumptions tied to the dominant social discourses and thus to explore other forms of productive co-operation, exchange, solidarity and living.
- Society and economy need to be viewed radically differently in response to the visible changes looming over the horizon and to the destiny of a disintegrating society.
- We have to widen the spaces and resources within which alternative socialities may be produced allowing for modes of life, cooperation and activities to emerge outwith the power apparatuses of capital and state.

Through these Gorz is advocating a revolution based on evolution,

> It is important to show that *the possibility of transcending capitalist society is inherent in the evolution of capitalist society itself* (Gorz, 1999:80)

and he proceeds to list a set of suggested policies for political parties to aim at:

- guaranteeing a sufficient income for all;
- combining the redistribution of work with the individual and collective control over time;
- encouraging new socialities to blossom, and new modes of co-operation and exchange, through which social bonds and social cohesion will be created beyond the wage-relation. (Gorz, 1999, p80)

Where Rifkin envisages a tri-partite system with roles for market capitalism, government social policy and civil society action, Gorz favours socialism over capitalism and looks to an end of capitalist power and the strengthening of a socialist paradigm. It is Gorz's view that we all must move on from notions of work and work-based society to take up activities for self fulfilment which have different characteristics. At the same time, there requires to be an interim political shift, for Gorz does not advocate that aspiring workers make the changes for themselves but that political social engineering should rearrange the distribution of work and sharing of financial resources. Governments need to set strategic objectives for meeting the urgent needs of society, while looking ahead to an alternative society whose time Gorz believes has come.

5.2.3 Giddens: Work and the Third Way

There has in recent years been a great deal of interest in the work of British social theorist, Anthony Giddens. This writer has established himself as an influential analyst of modernity and of the human condition in the present day. He was the Director of the London School of Economics and Political Science and is best known for his exposition of a political 'Third Way' (Giddens, 1998) which has influenced politics in Britain, especially in relation to the then Prime Minister Tony Blair and his New Labour government (see Chapter 6). It is said that he:

> . . . . combines an old-school, 'classical' sociological style with a very contemporary awareness of changes in society, and he is happy to mix new theories with more established theoretical perspectives. (Gauntlett, 2001)

Giddens has long called for a move away from politics that are polarised between left and right to a new way which would bring about a shift from class, and class politics, to concerns of self identity and self-actualisation. One of five dilemmas[1] that he identifies for the future of social democracy (Giddens, 1998:27), Giddens theorises about the effects of globalisation on society and the impact which institutional globalisation has on the social lives of individuals, but makes no claim to having a crystal ball for seeing the future.

> Giddens always stresses the contingency of globalisation. There will be opportunities to actively shape the transformation of the global order but no guarantees about the outcome. (Bryant, 2001:25)

Giddens sees globalisation as bringing about a fundamental shift in our institutions which will in turn impact on aspects of everyday lives, including the place and nature of work in those lives. He advocates a third way for the politics of the modernising left, which calls for response to changes in society through overhaul of pre-existing policies, in order to tackle the rising inequalities forced by globalization:

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[1] Giddens' five dilemmas: Globalisation, Individualism, Left and Right, Political agency and Ecological problems (See Giddens, 1998: Chapter 2:27)

Contesting inequality should remain a fundamental imperative of left of centre politics, and government must play an active role in achieving this aim. We should look to create a society which is inclusive and where we care for the weak or vulnerable. My argument is that to sustain those values in a changing world we must have an innovatory approach to politics, one which is informed by social science findings rather than dogmatic assertions and which seeks to grasp the dynamics underlying observable patterns of inequality. Third way politics is not an attempt to find a way between free market political philosophy and traditional socialism. It is an endeavour to find a way beyond both of them and to create a decent society in a world where the old policies have lapsed or proved inadequate. (Giddens, 2000a)

He envisages reforms of government and the state in relation to economic changes, which he sees as inevitable with the arising imperatives of a knowledge economy. Giddens is also an advocate of a 'civil society'. He envisages a new social contract which is appropriate for both globalisation and individualism, which stresses the rights and responsibilities of individual citizens both to take from society, but also to give back for the common good. In this scenario, government would have to regulate in some contexts, but should mainly facilitate through supporting citizens in assuming responsibilities and, as far as possible, to invest in human capital.

Government is not there only to constrain markets and technological change - it has just as significant a role in helping them work for the social good. (Giddens, 2000:84)

Notice that where Rifkin espoused a notion of social capital as a third strand for re-envisioning work and society, Giddens' third way includes education as a key force in human capital development. He sees education as "the main public investment that can foster both economic efficiency and civic cohesion" (Giddens, 2000:73). (See below for comment on human and social capital)

5.2.4 Comparing the Selected Historical and Contemporary Writers

The main ideas of the three writers highlighted in Chapter 3 and the three selected for this Chapter are listed in figure 8 below. The first set of theorists, let us call them the modernists,

Figure 8

Marx	Weber	Arendt
Politics/Economics History/Sociology Work - qualitative - value creating The division of labour The Alienation of Labour Accumulation of Capital Theory of Surplus value Rebellion/revolution	Sociologist/philosopher from historical basis Sociology of religion Studied development of Capitalism Protestant Work Ethic Calvinism - work not for acquisition but to excel in efforts and to eschew waste Protestant Ethic and the Spirit of capitalism Western style capitalism based on Protestant ethic (claimed)	Political philosopher Labour/Work/Action The Human Condition Labour produces necessities that are used and need to be reproduced. Work produces artefacts Worker gets esteem for his products status/power Actioninitiative - distinct individuals - relationships Making mark in society
Rifkin	**Gorz**	**Giddens**
Political economist - utopian - urban/environmental issues. US economic and social Work Impact of technological revolution Predicts new types of employment "near workerless information society" Unemployed should get government help and form communities of self-interest. Work should be reduced - profits dispersed. More emphasis on service economy.	Far left social critic - utopian Reclaiming Work -work-based society no longer exists -wage-based society no longer sustainable Shifts required in understanding of work. Social construct of the industrial age which needs to be dropped. Not new work but distribution of socially necessary work more civilised society. Revolution based on evolution	Social theorist - analyst of modernity and of human condition Third Way - influence on New Labour Class & class politics self-identity & self-actualisation Effects of globalisation Advocate of 'civil society' Some government regulation but mostly supported responsibility for citizens. Investment in human capital.

Figure 8: Summary of writings of three historical and three contemporary writers who have influenced understanding of the concept of work. (see Chapter 3 and Chapter 5)

investigate work as a class or religious marker or aspect of the human condition, an analysis which flows from the abundance of work and its necessity to capitalism and the industrial system. By contrast the second group of thinkers, let us call them the post-industrialists, all start their analyses of advanced capitalist society from the scarcity of work and try to theorise the ways in which both globalisation and watershed developments in information and communication technologies have at one and the same time resulted in the export of jobs through outsourcing and a renewed focus on creativity, innovation and entrepreneurship as a passport to economic growth. All of these theorists to a large extent share a certain utopian quality of thinking with concern for the betterment of the human condition. The post-industrialists, realising the value of work to a person's identity, ability to earn a living and their ultimate life chances, theorise the impact of technology and in particular computerisation and automation, arguing that we now need to be creative in addressing the question of full employment as the basis of a just society. To varying degrees they herald education, health and the third sector more generally as the chief sources of job creation and stability.

5.2.5 Assessing the significance of Rifkin, Gorz and Giddens for Education Policy Making

The three writers highlighted in this chapter, Rifkin, Gorz and Giddens, have used the evidence of huge changes in modes of operation within global economies in attempts to find new understandings and ways forward for societies. A large number of texts appeared in the nineteen eighties and nineties, written by business managers and consultants, that attempted to alert the public to rapid changes in the nature of work and proposing that a new work order was emerging. Some became best sellers; as for example Tom Peters' books *In Search of Excellence* (1982) and *Liberation Management* (1992). Peters' background was in business management and although not a philosopher or social commentator, as was the case with Peter Drucker (see below), he became a fashionable guru and the genre became hugely popular. James Gee et al (1996:24) have coined the phrase 'fast capitalism' to describe these books:

Fast capitalist texts have been very influential in their short life to date. They are important not only in the domains of business and work – their vision and values have deeply informed contemporary calls for reform both in adult education and training and in schools across the developed world . . . . . And they are changing the ways in which people think about the relationships among business, education, governance, and society at large. (Gee et al, 1996: 25)

Despite those who resist notions of globalisation, it is nevertheless clear that economic changes in parts of the world that are geographically remote to this country can have a profound effect on our national and indeed local interests.   John White of The London Institute of Education explores considerations of the end of work scenario, as suggested in the writings of the three authors above, and the possible implications for education (White, 1997). White challenges the centrality of work in our lives. He claims that schools, and those who are responsible for designing curricula, traditionally have had work aims at the forefront of their thinking. Even the organisation and structure of school days and the emphasis on hard work being a 'good thing' contribute to a deeply ingrained work culture in our society. He does not deny the social necessity of work, in order to get things done, and to provide for the needs of society, but regrets the emphasis on finding better and better jobs, to provide more and varied acquisitions, at the expense of those who have less, or even insufficient for living, and have 'low-grade' jobs or none at all. The high status and cultural value attached to 'having a job', White argues, makes unemployment an intolerable stigma:

... the assumption that (heteronymous) work should have a central, extensive place in human life has been embedded in British culture as well as in the modern world more generally. The shadows of the Puritan work-ethic are cast on our secular age, affecting the way individuals think of their lives, employment policy, the shape of the educational system. (White, 1997:40)

Parents, teachers and education policy makers have to look to the future to consider what the relationship between education and work might be. We don't yet know, and can only guess at, how technological change or different understandings of the notion of what work is, may affect our society. White suggests two possible scenarios and what they could imply for the relationship between education and work. The first option is to continue as we are doing at

the moment, with our dealings with education and work reinforcing current notions of employment, where for most people the ideal is a secure full time job, despite the fact that different kinds of jobs and working patterns mean that we are moving towards new divisions in society in terms of employment. White describes these divisions as follows:

> We are witnessing a new three-way social division of the working population, mirrored in institution after institution across public, private and voluntary sectors, into [a] a growing number of unemployed or otherwise economically inactive people; [b] a periphery of workers, often casual, on short term contracts or part-time, who can be hired and fired flexibly as employment demands dictate; and [c] a core of better paid full-time and long-serving part-time staff. (White, 1997:70)

If we stick with current approaches in education White believes that we will continue to urge young people towards ideals of employment and career choices that will only in reality be there for a very small proportion of school leavers. Earlier choices may have to be made about pathways in liberal or vocational education, and society would become more divided on issues of well-being, prosperity, security of employment and quality of work. Many teachers who have higher aspirations for their pupils will find themselves in a minority, although they could still help their pupils to question the ethics of the emphases of education, particularly now with education for citizenship having been introduced into curricula. White's alternative scenario depends on society developing a "more liberal view of human well-being" (p74) He argues that there are already those who would prefer a bigger proportion of their time and energy to be spent on leisure or creative activity away from paid employment and that the type of fulfilment to be derived from this more flexible application of personal activity is becoming more attractive to many. White does not suggest that young people should be pushed to view their futures in this way, but rather that teachers could begin to offer its perspectives as part of their approach and if society moves in a direction where this kind of lifestyle becomes more widely embraced, then pupils can be assisted in acquiring the wherewithal to make choices for themselves on whether to proceed this way or not. Children will have all sorts of goals to pursue including activities and relationships, but historically children have been urged towards a single pattern for work.

We could change this:

> Increasingly, work-related aims should find their place within a larger framework of well-being aims. Work goals are a sub-set of activity goals. (White, 1997:92)

Teachers and policy makers must also be aware that the greatest growth area in modern societies is that of a knowledge economy. Rifkin (1995:174) refers to 'knowledge workers' in a 'knowledge sector' (see Chapter 7). A new class of society which is as yet small in number but growing exponentially and commands the highest rewards in income. Gorz refers to a knowledge capital:

> The most important form of fixed capital is now the knowledge stored in, and instantly available from, information technologies, and the most important form of labour power is brainpower. (1999:6)

Giddens claims that increasing globalisation has been influenced by information technology, and in turn the knowledge economy is becoming globalised. It will be teachers' and policy makers' ability to recognise this, and to respond accordingly, which will be necessary to make education relevant for young people.

> The key force in human capital development obviously has to be education. It is the main public investment that can foster both economic efficiency and civic cohesion. Education isn't a static input into the knowledge economy, but is itself becoming transformed by it. . . . . Education needs to be redefined to focus on capabilities that individuals will be able to develop through life. (Giddens, 2000b:73)

Policy makers should consider the extent to which the scenarios provided by such as Rifkin, Gorz and Giddens may come to pass. Christopher Winch (2000:176), for example, argues that, while we may be seeing the end of some kinds of work, mainly low-skill, manual and mechanical production line, there is no case for the end of work scenarios as predicted by Rifkin and Gorz.

> . . . since paid employment is still going to constitute the principal arena of life in which people's identity is formed and in which their capacity to act and interact with other people is exercised, education as a preparation for life must include, as one of its aims, that of preparing young people for a life where paid employment constitutes a major part of their adult lives. (Winch, 2000:176)

Some creative strategic thinking is required on the part of those who make recommendations on how to address education that prepares young people for their future working lives. The unknowns that will have to be pondered are not confined in their influence to the future direction of education for work. The very nature and purpose of education are the context for such decision making. It is not sufficient merely to react to political incitement to try to produce more enterprising citizens among whose numbers there will hopefully be a clutch of entrepreneurs. In Scotland, as indeed elsewhere, education for work is often treated as a special case, despite its obvious links across, and dependence on, the whole curriculum. However, most aspects of education for work form a subset of those required for development as responsible citizens. Members of communities are needed who can recognise their roles and who can participate in building a civil society. It is a matter of ethical importance that the possible implications of the evolving role of work in society should be taken into account in every feature of educational policy development, not just in education for work. These are matters that merit further consideration and will be pursued again later in the thesis.

5.3 Education for Work in Post-Industrial Society

As early as 1969, the famous thinker and writer on the sociology of work, management and developing practice in work-based organisations, Peter Drucker, was identifying that new industries depended heavily on the development of systems. "The technology of the twentieth century embraces and feeds off the entire array of human knowledges, the physical sciences as well as the humanities." (Drucker, 1969: 35) Indeed Drucker sees no distinction between these two areas of study for new technology and thus poses an interesting challenge for education that was not in fact taken up until debates that were to take place a decade later. The historical split between those who are scientifically trained and those who are humanistically trained was seen by Drucker as a barrier to development in new technologies:

We will have to demand of the scientifically-trained man that he should again become a humanist, otherwise he will lack the knowledge and perception needed to make his science effective, or indeed to make it truly scientific. We will have to demand of the humanist that he acquire an understanding of science, or else his humanities will be irrelevant and ineffectual. We will, above all, have to demand of the people concerned with the economy, whether as politicians, as businessmen, or as researchers, that they understand both cultures and move with equal ease in both. (Drucker, 1969:35)

With the changing nature of work some post-industrial workers, particularly those with credentials or at least transferable cognitive skills, have been able to move into high-tech positions. Their decision-making abilities are an important factor in the maintenance of their positions, they can command high wages and often find their work stimulating or at least personally satisfying. For others however, who are not able to acquire the necessary skills to move to high-tech or information dependent positions, there are fewer jobs available and those are generally poorly paid, with no prospects for advancement, and offer little security and poor working conditions. (Bills, 2004:107)   The structure and design of education must evolve to provide better preparation for the changing work related needs of learners in the post-industrial economy. This evolution requires two components. The first is the ability of educators to recognise the shifts that have occurred, and are continuing to take place, within working practices in society and the second is to be prepared to make prudent use of predictions and forecasts of the likely shifts still to come. While recognising the risks of trying to predict too far ahead, it is worthwhile to monitor the emerging trends. Social monitoring systems make predictions from statistics, but need to be reviewed regularly to pick up on shifting trends. This advice applies as much to those engaged in developing educational policy as it does to business managers or entrepreneurs. Indeed educators must operate within Bell's fifth dimension of post-industrial society as described above, and make use of intellectual technology to inform policy planning and development.

Educators in post-industrial societies have to be aware of the vastly expanding codification of theoretical knowledge and be able to support learners in being able to access it appropriately.

Andrew Abbott (1988), however, warns of some risks run by relying too strongly on the acquisition of theoretical knowledge without recognising the requirements for applying it in practice as in, for example, the professions. Professional knowledge is often acquired in educational contexts but the theoretical knowledge base should not be separated from the practical application of that knowledge in the working environment. Abbott believes that the application of abstract or concrete knowledge in real working contexts is as much a feature of post-industrial as of industrial societies. It follows that education must take up the task of linking theory and practice or risk devaluing the benefits of acquiring theoretical knowledge. The occupation of technician is a good example of a post-industrial worker who requires both complex knowledge and practical expertise. Thus, according to David Bills:

> The postindustrial workplace evokes a range of skills, capabilities and dispositions. The relation of these factors to the educational system thus emerges as a central question of the postindustrial society. (Bills, 2004:102)

Masuda (1990) anticipated that a "*knowledge network* would become the core of a new type of education, which places emphasis on individual abilities" (p14) and that the ready availability of information and knowledge would encourage creativity leading to a mass knowledge creating society. He predicted a change in value systems from material to time value; in economic systems, from free competition to a synergetic economic system; from parliamentary democracy to participatory democracy. The corresponding educational system changes predicted by Masuda are:

- a move away from the restrictions of formal schools to knowledge networks;
- a more personal type of education suited to individual ability rather than age-related stage;
- self-learning, where teachers act as a resource for consultation;
- knowledge creative education based on information values;
- lifetime education with learning opportunities available at any age.

The relationship between education and work in post-industrial society is clearly linked to the emergence of an intellectual technology that encompasses both machinery and information

technology but also requires 'know how' about how society organises itself to adapt to technological change: what Bills (2004: 102) refers to as 'sociotechnologies'. Bills goes on to give examples as in econometrics, using high speed computing to prepare economic simulations and forecasts, and psychometrics, the measurement of cognitive aptitude. This latter, in line with general shifts to more market driven models of education, has contributed to the emphases on performativity and the measuring of achievement that have become so prominent in US and UK education systems. Along with this move to systematic testing and measurement of performance in schools and the use of psychometric testing to 'measure' ability for prospective employment, comes an increased dependence on credentials to quantify what has been achieved and package it as badges of merit to demonstrate to potential employers that specific educational obstacles have been overcome. There is a somewhat lessened requirement for formal testing of all school students now in Scotland but there is still a high dependence on formal examination systems at end points of secondary schooling. This has historically been the means to gain entry to tertiary education, but increasingly employment at many different levels has come to demand educational entry requirements for access. This has brought about the phenomenon of credential inflation whereby the previously recognised qualifications for many routes into employment are no longer sufficient. In post-industrial society, many more young people spend more years in secondary education and thus greater proportions of society gain the credentials of leaving certificates. Employers can make increased demands on young people seeking entry to careers. More and varied universities are offering degree qualifications in subject areas that would previously have provided lower level certification and clear job prospects. This credential inflation means that ever higher levels of qualification become the expected norms and qualifications lose their currency more rapidly. Many unemployed people have found that they are overqualified for the low skill jobs that may be available and so there is a mismatch of jobs and skills. Parents and teachers have aspirations for young people's general learning and development that often includes the passing of exams and gaining of certificates as the gateway to degree level opportunities that they may not have had for themselves. Nel Noddings, however, observes in *Happiness and Education* (2005) that education often places emphasis on the goals of

credentialised occupational life and economic success. With a long list of rather mundane and unexciting occupations, that will nevertheless be the lot of many young people, as well as being indispensable for the functioning of society, she goes on to ask if we are failing the many on whom society depends in just such occupations:

> In today's education, occupational (economic) life is the focus of our attention. We want every child to succeed, and this has come to mean that every child should be prepared for college and the sort of work that requires a college education. What of all the children who will become bus and truck drivers, retail sales clerks, appliance repair people, construction workers, material handlers, heavy equipment operators, railway engineers and conductors, house painters, plumbers, bakers, farm workers, beauticians, postal workers, cooks, waiters, hotel clerks, house and office cleaners, auto mechanics and salespeople, dog and horse groomers, telephone/electric line workers, prison guards, hospital attendants, grounds keepers, maintenance workers, managers of laundromats and dry cleaning shops, installers of burglar alarms, carpet layers, window washers, steel workers, fishermen, sailors, caterers, cashiers, chimney sweeps, roofers, makers of china and glassware, decorators, musicians, florists, entertainers, moving men . . . and what would happen to our society if no one were willing to do this work? Do these people represent failures of schooling, or do we fail them when we lead them to believe that only economic success *is* success? (Noddings, 2005:35)

If post-industrial society is thus characterised by a shift to an economy based on the production of services, with emphases on the knowledge required to support all forms of production, there are implications for the style of education that is driven by such a shift. The work-related questions for contemporary education then in post-industrial society are to do with identifying what kinds of jobs are becoming available to replace those that have been superseded by automation and whether the available workforce can be adequately prepared to engage with the skills, involving research, complex problem solving, diagnoses, interaction and communication, that new types of jobs require. (Hage & Powers, 1992: 11)

An important issue for education is to help young people to identify, from their range of knowledge and skills and from their views on work and adult societal roles, an area of

employment to aspire to and prepare for that realistically suits their hopes and desires.

> A society also has a duty of care, to give young people the opportunity to choose occupations that they find desirable and to afford them a good chance of having those choices fulfilled. (Winch, 2000: 124)

This matching of individuals to available occupations is often referred to as a labour market and although there is evidence that some young people leave formal schooling with no clear idea of what they will move to, it is important that opportunities for the exploration of possibilities begins at an early stage and that teachers are properly prepared to assist and prompt such considerations.

5.3.1 Human Capital, Social Capital and New Forms of Welfare

The idea of human capital derives from a view expressed in Adam Smith's work that it was just as important to invest in the knowledge and skills of individuals as to invest in materials and machinery to promote economic progress. The term human capital was first coined by Theodor Schultz (1961) and Gary Becker (1964) in the nineteen-sixties (Schuller, 1996: 1) and referred to the notion that learning, whether acquired through education or personal endeavour, could influence the future prospects of individuals by placing them in better positions to advance economically and socially.

> Just as physical capital is created by changes in materials to form tools that facilitate production, human capital is created by changes in persons that bring about skills and capabilities that make them able to act in new ways. (Coleman, 1988:100)

As a construct for explaining the value of learning for human development, human capital has been useful but not uncontested. It seems to be aligned with new forms of vocationalism that seek to link educational practice more closely with the needs of the economy and as such attracts criticism for supplanting more liberal approaches in education. It does seem to pay off in terms of economic performance in countries where more education is provided (Schuller, 1996:2) but its effects are notoriously difficult to measure (Brown & Lauder, 2001:117). Attempts to calculate the benefits to be gained from education, what Bourdieu

(1997: 48) calls scholastic investment, tend to depend on an accounting of credentials and of subsequent levels of remuneration which are monetary investments and for which data can readily be found. Other aspects of human capital are less easy to quantify although their effects may be observed in the cultural and social competence of individuals who receive and are able to build upon extended educational opportunities.

Human capital has become a dominant feature of government policies (Brown & Lauder, 2001: 220) and Anthony Giddens (1998: 47) cites "the active development of human capital through its core role in the education system" as one of the 'raisons d'être' of third way style government. It has been widely adopted in management systems and can be seen in the rebranding of personnel departments in organisations as human resource departments where ostensibly individuals are to be treated more humanely in recognition of what they can contribute to general profitability but in effect individuals are often treated as units of human resource which can be just as, if not more, dehumanising than being a listed member of staff.

Along with economic capital and human capital there is also now, within political economy and sociology, a conception of a social capital in which individuals can derive economic, cultural or social benefit from the quality of their social relationships or networks.

> The volume of the social capital possessed by a given agent thus depends on the size of the network of connections he can effectively mobilise and on the volume of the capital (economic, cultural or symbolic) possessed in his own right by each of those to whom he is connected. (Bourdieu, 1997: 51)

Social capital is built up through norms within social values, networks of communication and trust (Olssen et al, 2004: 193). Elements of trust and trustworthiness are of prime importance in social networks and benefits derive from actors working together with and for each other that would not be achievable for individuals acting alone. Social capital can provide both economic and non-economic benefits but can also have a negative connotation as for example when networks collaborate for anti-social purposes such as organised crime (Fukuyama, 1999: 19).

James Coleman (1988) brought the term social capital into prominence in the nineteen-eighties and stressed, among other social groupings, its particular importance within families in terms of the strength of relationships between parents and children in supporting children's educational growth. (p110)

> If physical capital is wholly tangible, being embodied in observable material form, and human capital is less tangible, being embodied in the skills and knowledge acquired by an individual, social capital is less tangible yet, for it exists in the r*elations* among persons. (Coleman, 1998: 101)

Having already published work on features of social capital such as networks, norms and trust, Robert Putnam's 1999 text *Bowling Alone* seemed to strike a chord in American society by pointing out the apparent breakdown of social relationships and suggesting what might be needed to rebuild social capital by restoring trust and interdependence within various social groups.

> . . . . it is important to ask how the positive consequences of social capital - - mutual support, co-operation, trust, institutional effectiveness - - can be maximized and the negative manifestations - - sectarianism, ethnocentrism, corruption - - minimized. (Putnam, 1999)

Education is a predominant factor in promoting human capital and social capital through public investment that is made with the intention of increasing economic efficiency and building civic cohesion. However, it is in the area of trust within education that the aims of social capital are least well served. The strong cultures of control currently in place in schools demand accountability and performativity reducing teachers' scope for professional action that would support the development of human and social capital in their pupils. There is a temptation to use the language of banking where human and social capital is stored up in pupils such as when investing in shares and saving for the future. These approaches to education may contribute to work related purposes but inherent constraints on education can divert teachers and learners away from fundamental purposes of education such as equality, choice and the development of the individual person.

As it becomes increasingly difficult for nation-states to maintain the provision of welfare as an entitlement to all citizens there has been a shift in most developed countries from forms of welfare state provision to notions of the welfare society where "welfare assumptions are an organic part of everyday life" (Rodger, 2000:8) and refers to the wellbeing of everyone rather than just the provision of essential services. A welfare society depends more on what people themselves can do for each other than on what the government can organise on behalf of society and private enterprise and competitive markets are expected to provide for the needs of society rather than state provision. The Welfare Society is being predicated more on social citizenship than "on the Poor Law tradition" which viewed the poor or economically inactive members of society as uncomfortably unproductive liabilities to be supervised and if possible rehabilitated (Rodger, 2000:10). There is a declining role for interventionist approaches to welfare provision to the extent that the modernist conception of welfare states based on social change and redistribution of power and wealth is now widely questioned. Few now believe that the welfare state can fulfil what it sought to achieve at its outset and solutions to poverty and social exclusion are being sought elsewhere. In discussing the development of human capital within New Labour Britain and its changing relationship to welfare provision, Tomlinson (2001) commented on the role of education in preparing young people for their potential contribution to the economy "and not much else" (p4) and stated:

> An overall conclusion is that education has moved from being a key pillar of the welfare state to being a prop for a global market economy. (Tomlinson, 2001:216)

While this may be true in educational situations that have become preoccupied with neo-liberal free market considerations and neo-conservative drives for accountability, it is arguably the case that Scotland has avoided the worst excesses of such conditions and is managing to steer a course that allows for both by maintaining largely comprehensive organisation for schools, albeit in less rigid forms than at the height of the welfare state educational provision of the nineteen sixties and seventies.

5.3.2 Post-modern Influences

Those post-industrial shifts in society and work that have been described above have been sweeping in scope and demanding for all to come to terms with, not least for those responsible for providing and designing educational opportunities. As developments in communications technology and global interconnectedness are accelerating at exponential rates, the collapse of ideas that there are meta-narratives that shape history has moved us to a more pluralistic and diverse view of society where many aspects seem to be continually in a state of flux. Where Marxist theory held that society was shaped by economic forces, Jean Baudrillard, a prominent writer on post-modern theory, claimed instead that society has come to be dominated and formed by signs and images, such as what is presented to us by television and other media. Theorists of postmodernism generally claim that there is a greater degree of fragmentation, pluralism and individualism in societies, partly due to changes in the ways in which work is organised because of technological change but, according to Kumar (1997), it is also a result of 'the decline of the nation state and of dominant national cultures' (p98). Post-modernism would claim that modernity, which grew out of the Enlightenment, the Industrial Revolution and Marxism, has collapsed so that we live now in a culture that is endlessly contemporary, a virtual world of hyper-reality and Fukuyama's proclaimed 'end of history' (Appignanesi & Garret, 1995). In the post-modern era, the relationship between individuals' identities and their occupations has broken down. Whereas in industrial and post-industrial society people's occupations could be used to define their identity, post-modernism sees people constantly having to redefine themselves as the nature of work becomes increasingly disjointed. This is evident in frequent career changes, the casualisation of work, the feminisation of the workforce, people having multiple or part-time jobs and the possibility of early retirement. Many in society have become marginalised and find themselves outside the labour market altogether. Structural unemployment has increased, particularly in former industrial areas, while many un-skilled or low-skilled jobs are being out-sourced to Third World countries where labour is very cheap. There is no longer any security of employment or entitlement to work.

In this ever-changing environment for work, educators have to recognise that these massive shifts have occurred and are continuing to do so and that education requires some redefinition to meet the newly emerging needs of individuals, communities and societies of various sorts. It has become necessary for education to concern itself with lifelong learning and with other ways of reaching or being available, for individuals of all ages. The considerations of this chapter thus address questions 3,4,5 & 6 posed in Chapter 1. The need for clearly articulated work-related purposes for education is at its most pressing in the post-industrial economy. Education policy and practice are still striving to meet the needs of employers and employees in a traditional and reactive way. The era of post-industrial economics, however, has also seen huge advance in technology that is based on information and communications and that introduces a new and proactive role for education in moving to take up a more strategically significant stance in the development of societies and economies. Shifts in work practices are easily identifiable because of the profound impact that they are having on people's jobs, livelihoods and roles in society. Implications for changing to new relationships with work and education are challenging long held attitudes to, and perceptions of, the place of work in human lives. Dominant concepts of the nature of work have developed through centuries of adjustment to societal changes but post-industrial developments require a particularly rapid conceptual shift. Educators can no longer afford merely to follow the trends of the workplace in conducting work-related education but must strive to understand post-industrial shifts and be prepared to take the lead in directing and supporting knowledge-based progress. The twin phenomena of escalating global interconnectedness and increasing emphasis on knowledge as a commodity are crucial aspects arising from the post-industrial economy that are reshaping work and making different demands on education that will be explored in Chapters 6 and 7 respectively.

Chapter 6 - Globalisation, Neo-liberalism and Education

6.1 Issues of Globalisation

There has been increasing use of the term globalisation in recent years. Globalisation is a contested concept that relates to phenomena of interconnectedness in dealings across the globe of which knowledge work is a predominant feature. It relates to a rise in the interdependence of governments, corporations and people, spurred by the spread of the free market economic system across the globe. Advances in new technology have brought about large scale changes in communication and transport that have in turn made economic systems more globally connected. The acquisition of global knowledge capital and participation in both manufacturing and knowledge economies are heralding major shifts in the nature of work at the beginning of the twenty-first century. Neo-liberalism is a term used for global market liberalism, or capitalism, that promotes and supports the expansion of free trade. This chapter explores the phenomenon of globalisation, the influence of neoliberalism and the impact of their dominant ideologies on the concept of work and how education is consequently challenged to remodel itself to meet the ever-changing needs of young people in our contemporary society.

6.1.1 What is Globalisation?

> Growing interdependence between different peoples, regions and countries in the world as social and economic relationships come to stretch worldwide. (Giddens, 2001: 691)

To define globalisation is difficult because its effects can have different impact on people depending on their social and economic circumstances or geographical locations. Giddens' description above gives a flavour of an expansive but vague phenomenon that impinges on the lives and circumstances of huge numbers of people across the globe. Generally the term refers to an increase in interconnectedness due to the effects of much faster communication brought about by instant electronic access and much easier travel over large distances. This allows for greater connectivity in interactions allowing social relations to exist among widespread participants. It also means that the virtual presence and impact of participants from even far

off locations can influence our local activities. At the same time, individuals can be aware of, take an interest in and make an impact upon, matters that are of global significance. The effects of globalisation can be viewed through a variety of lenses, the most common of which are political, social and cultural, technological, economic and environmental. All of these have implications for the ways in which work and workforces are organised and for education policy. There are some aspects of world-wide affairs that provide easily identifiable evidence of globalisation such as electronic communication, world wide financial markets or ease of travel and mobility. Other aspects are less easy to observe but their effects can be identified. These are communications and trading networks that have developed across nations so that events which happen at a distance can affect people's local situation while at the same time local events can have significant impact in other parts of the world.

Globalisation is a contested concept, both politically and theoretically, provoking a wide range of responses (Held, 1999, 2003). The term has undoubtedly attained iconic status such that writers in areas such as business, politics and education use it readily whenever changing contexts and conditions are being discussed. Many aspects of globalisation have an appeal that invokes a positive response but there are anxieties about possibly damaging effects of widening links and deepening interdependence with less welcome or inviting consequences such as destitution for those who cannot obtain any means of participation or environmental degradation for which it is difficult to allocate responsibility. This can be seen in the strength of the demonstrations that have taken place in protest at the influence of organisations such as the World Bank or at G8 summits in several countries in recent years. The benefits of globalisation seem to be unequally distributed. Its benefits are not equally available to all and indeed this can be observed in the fates of victims who have suffered as a result of the fast moving markets and highly moveable capital that are integral to a global economy. For many people in the so called developed nations, globalisation has its greatest influence on financial and trade opportunities but in developing nations it can impact on these and other aspects such as employment and obtaining loans to maintaining small businesses (Stiglitz, 2002).

Globalisation's impact, particularly on small or underdeveloped countries, can determine whether cultures and national identities survive.

Globalisation is, however, more than international connectedness. Although nation states can still command allegiance and exert influence, due to their territorial control and legal autonomy (Giddens, 2000b: 122), and make alliances for mutual benefit, such as the European Union, the scope of communication and the impact of the market are influences that develop outwith nations and their traditional networks of external links. Giddens also cites the growth in influence and number of non-governmental organisations (NGOs) as evidence of changes from deep within nations to indicate that globalisation is developing on different levels and is more complex than internationalism. A detailed description of the development and complexity of the range of NGOs now in existence is provided by Peter Willetts (2002) in his article *What is a Non-Governmental Organization?* written for the Encyclopaedia of The United Nations Educational, Scientific and Cultural Organization (UNESCO). (See also Paul, 2000)

Held (1999) goes on to develop an account of globalisation that identifies what can be seen as some defining aspects. He describes an entanglement of several global processes e.g. communication and trade, that have different degrees of impact for different societies and therefore cannot be thought of as a single integrating system. These various global processes and networks can have both constraining and empowering effects on communities, countries and trans-national organisations, and can affect both their structures and the power relationships within. They can open up opportunities for development or they can potentially alienate and diminish less sophisticated groups. The interconnectedness of globalisation can manifest itself differently within different domains of social activity so that it is a multi-faceted rather than uniform process. Globalisation can alter the social and political relationships among traditional groupings on local, national and international levels but these can be redefined with different legal and territorial boundaries such that David Held (1999) describes as "subnational, regional and supranational economic zones, mechanisms of governance and cultural complexes." (p28) The power relationships that drive the various

facets of globalisation and their interrelationships are crucial to understanding the impact of the phenomena. The way in which power can be wielded at a distance from where its impact can be felt is a major feature of globalisation along with the concentration of power in centres such as large cities.

Some aspects of globalisation are not new and indeed there are examples of geographically widespread interconnections at various points in history. A nineteenth century example is the expansion of the British Empire as is also the widespread colonisation undertaken by other European countries. Britain was able to exert huge political control over large parts of the world, engage in extensive trade relationships and was able to dominate very many subordinated countries. In the modern world, although most of the great colonising powers of the nineteenth and twentieth centuries have lost their dominance, most of the nation states of the world take part in global flows and trans-national networks. Globalisation is apparent in financial and business sectors through the increasing impact that national economies and trade flows have on each other and also in the rise of multi-national companies whose power bases are often much wider than those of individual nation states.

The era of globalisation can be seen as a further stage in the cycle of change in human work activity. The spread of organised agricultural activity changed the culture and lifestyle of peasant farmers and had widespread impact on ways in which groups of workers formed co-operative connections. The technological advances of the industrial revolution brought about a further major shift in working patterns and again led to major cultural and lifestyle changes with the degree of interconnectedness increasing and trade being conducted across the globe. It is the advances in technology in the late twentieth century, bringing about a communications revolution, which have changed lifestyles world-wide and allowed international trade to reach new levels. The cultural impact of globalisation is the subject of debate with in many cases cultural icons being adopted across countries, through for example the entertainment and food industries, but at the same time opportunities for preserving and

studying unique cultures are being provided. In these cultural connections globalisation could indeed then be the next turn of a longstanding cycle of development.

The unprecedented terrorist attacks of September 11, 2001 represent a watershed in many aspects of global relationships, but how have they affected the spread of global influence? In one respect there are responses which suggest an entrenchment of nationalistic ideals as countries consider their own interests and vulnerabilities in a more dangerous and unpredictable world. The debates and actions that ensued, however, depended on several classic aspects of globalisation. (Held, 2003) The impact of visual evidence of the events, flashed around the world at high speed due to globalised communications, brought the horror to billions simultaneously. Although the attacks were made on US targets, the effects were felt in many nations across the globe in terms of human, economic and political repercussions. Held maintains that the task of debating globalisation is even more urgent since these events took place.

6.1.2 Different Perspectives on Globalisation

Globalisation has had an impact on political communities as established territorial political forces are affected by global politics and governance on several levels beyond that of the nation state. Politics is an area of human activity in which what happens in individual nations can have an impact on many others and there are political alliances of various sorts to be found. There are now several agencies and organisations that have political influence over groups of nation states, an example of which is the European Union, originally an economic initiative, now wider in scope and increasing in political influence, although there are ongoing debates, including much disagreement, about its role and constitution. Global governance can be seen in organisations such as the World Trade Organisation and the United Nations. International organisations such as the North Atlantic Treaty Organisation (NATO), in which nations pool their resources for defence matters, require groups of nation states to agree on decisions arising from their shared interest. Held et al (1999:80) offer points that characterise the influence of political globalisation on modern nation states. Effective political power is no

longer solely contained within the governments of single nations. Many influential forces that impact on people's lives and well being originate from wider agencies of political power than that of the nation state. National governments have restrictions and limitations imposed because of their allegiance to wider cross-national bodies, for example the European Union or the United Nations. There can be conflicting loyalties when citizens are aware that they can appeal to a higher power or feel that their own national government's power is no longer the last word. Groups of nations are often bound together in various ways, perhaps for trading benefits or by cultural links, so that there can be overlapping loyalties and an "intermeshing of 'national fortunes'" (Held, 1999:81), leading to a blurring of lines of accountability. National governments deal with numerous domestic and internal matters but they must also be constantly aware of their roles in external and international affairs. Equally some internal matters may have external consequences to be considered so that it is not possible for a modern nation state to confine itself to dealing with its own affairs in isolation:

> At the political level, the nation-state survives as a medial institution, far from powerless, but constrained by trying to balance four imperatives: (1) responses to transnational capital; (2) responses to global political structures (for example, the United Nations) and other nongovernmental organizations; (3) responses to domestic pressures and demands, in order to maintain its own political legitimacy; and (4) responses to its own internal needs and self-interests. (Burbules, 2000:10)

If nation states are no longer the last word in political decision-making then there are implications for education policy and the way that it is perceived (Burbules, 2000:4). The governance of education is the responsibility of governments but policy has to take global issues into account and these in turn will limit the scope of politicians in how they develop and disseminate education policy.

> The origins, nature, and dynamics of the process of globalization are, therefore, a focus of concern for educational philosophers, sociologists, curriculum workers, teachers, policy makers, politicians, parents, and many others involved in the educational endeavor. The processes of globalization, however defined, seem to have serious consequences for transforming teaching and learning as they have been understood within the context of educational practices and public policies that are highly national in character. (Burbules, 2000:4)

An example of external influence on national education policy can be seen in the approach taken by New Labour, particularly in their first term of office. Policies were compared to those of the previous Conservative government and it was thought that there was little difference. The hopes of some, of a return to more socialist models of education, were dashed as little was changed and many neo-liberal aspects were pursued with equal if not increased vigour. Stephen Ball (1999) commented that New Labour policies are not entirely their own because of the strength of influence of, and compulsion to be aligned with, global policy types or 'policyscapes'

> . . . I am not suggesting that Labour's education policy can be read off in their entirety from a global educational agenda or that labour has no real control over its policy decisions, set as they are within the logic of the global market. Education has a complex set of relationships to and within the processes of globalisation. (Ball, 1999:198)

Globalisation is having an impact on social relationships in a variety of ways. Held (2000: 28) suggests that the pressures of financial globalisation are making it more difficult for states to maintain their social welfare programmes and we could be witnessing an end to such schemes or at least the introduction of more limited forms of social welfare provision. There is tension between the sweep of global markets and the social welfare of those who are in groups that find themselves excluded from the dynamic of the escalation of trade and influence beyond the state (Rodrik, 2003:378). Sections of society that cannot keep up can be abandoned to poverty and to the remnants of social welfare programmes that can no longer provide enough support. International pressures on jobs and wages are increased because nations are competing with different social expectations, so that states, usually those that are less developed, where a lower income is acceptable in payment for labour, are able to outbid and obtain work contracts from those states where there are worker expectations of job security and high wages. Mander & Goldsmith (1996) point out that social welfare is a relatively recent phenomenon, with earlier societies having been able to build enough social

capital to satisfy their own needs and to look after the young, old and infirm, usually in extended families or close communities. Now that social welfare systems, albeit offering varying degrees of support, are well established in many mainly western states, the prospect of huge reduction in such systems is prompting fear among citizens that they are "losing control of their lives in the midst of rapid change" (Giddens, 2001:440).

Many western societies have made economic strides that have improved wealth and welfare opportunities for many of their citizens. Brown and Lauder (2001) explain that Keynesian economics encouraged wealth creation as a prerequisite to establishing social welfare provision, notably Keynes vision of a society 'beyond scarcity', but that this is proving to be a myth as the ranks of the under or unemployed and those dependent on state welfare increase rapidly. Many states are finding it ever more difficult to provide the levels of service required. Brown and Lauder (2001) contend, however, that it should still be possible for nation states to mitigate the effects of global capitalism for those citizens who cannot support themselves in the new economic and political climates. Globalisation in Western states has been used to economic advantage by those, mostly already wealthier, citizens who could adapt to different operational circumstances. The thesis of social reproduction (see Chapter 3) can provide some explanation for the ways in which individuals and groups deal with social inequality and teachers of every area of expertise should have some awareness of the sociological implications for their students. Their efforts to prepare their pupils for the world of work should be informed about the social constraints that will be encountered.

The impact of film and television on the spread of Western style values is thought by some to be a major cause of cultural globalisation (Olssen, 2004a), but there is another view that more awareness of the other and more opportunity for people with different cultures to be in contact and work together, is leading to greater tolerance of cultural diversity.

> The cultural Other is no longer remote, exotic, or mystical and beyond our reach.
> The Other is all around us. The ensuing cultural diversity has clearly enriched us
> -- hybridity has become almost the cultural norm. (Rizvi, 2000)

Many individuals find themselves striving to live their lives within complex cultural diversity by living within a dominant culture and maintaining perhaps inherited or traditional contrasting cultural identities. Some are experiencing what Giddens (2001:64) calls 'hybrid cultural identity' where a strong traditional culture can be maintained at the same time as participation in popular culture. Cultural globalisation is further spread by the influence of transnational companies that can advertise their products throughout the world and thereby promote Western consumerist values and expectations (Olssen, 2004a:6), and the internet intensifies the rate of global cultural spread. The ambiguities inherent in cultural globalisation are echoed in the universalisation of the English language. Many people from countries or cultures with traditional languages other than English are anxious to be able to communicate in English, the language that they see as their passport to global communication. At the same time efforts are being made to maintain the cultural legacy of other languages, including minority and aboriginal tongues as well as other major languages that are declining in use in international circles. The Spanish language for example is the first, and in many cases only, language of many immigrants to the United States. They will require some English to be able to access social and cultural links within the US but if 90% of a district is Spanish speaking there are implications for deciding on the teaching language within schools that present local political leaders with difficulties to be resolved.

> Cultural flows are transforming the politics of national identity and the politics
> of identity more generally. (Held, 2003:18)

There has always been some degree of cultural exchange resulting from travel and trade arrangements over the centuries but the accelerated rate of increase in cultural connection and interaction, witnessed since the last decades of the twentieth century, is unprecedented.

A summary of three main schools of thought about what cultural globalisation is, and what its effects might be, is provided in a globalisation debate by David Held. (Held, et al, 1999) (see figure 9 below) He defines hyperglobalists, whose understanding of globalisation is based on the widespread growth of a global marketplace influenced by Western consumerism. His next

definition is of sceptics who would claim that there is no such thing as globalisation but rather some phenomena related to international economics which in itself is segmented. Sceptics highlight the cultural differences that they claim are being maintained in any case, despite claims of globalising trends.

Figure 9

	Hyperglobalists	Sceptics	Transformationalists
What's new?	A Global Age	Trading blocs, weaker governance than in earlier periods	Historically unprecedented levels of global interconnectedness
Dominant features	Global capitalism, global governance, global civil society	World less interdependent than in 1890s	'Thick' (intensive and extensive) globalisation
Power of national governments	Declining or eroding	Reinforced or enhanced	Reconstituted, restructured
Driving forces of globalisation	Capitalism and technology	States and markets	Combined forces of modernity
Pattern of stratification	Erosion of old hierarchies	Increased marginalisation of South	New architecture of world order
Dominant motif	McDonalds, Madonna, etc.	National interest	Transformation of political community
Conceptualisation of globalisation	As a reordering of the framework of human action	As internationalisation and regionalisation	As the reordering of interregional relations and actions at a distance.
Historical trajectory	Global civilisation	Regional blocs/ clash of civilisations	Indeterminate: global integration and fragmentation
Summary argument	The end of the nation-state	Internationalisation depends on state acquiescence and support	Globalisation transforming state power and world politics

Figure 9: Conceptualising globalisation: three tendencies. From Global Transformations: Politics, Economics and Culture (1999), David Held & Anthony McGrew, David Goldblatt & Jonathan Perraton. Polity Press (p10).

Held's third definition is of what he calls transformationalists who see globalisation as a new development in history in which peoples struggle to adapt to wider connectedness but also greater uncertainty across the globe. They describe the "intermingling of cultures and peoples as generating cultural hybrids and new global cultural networks." (Held, 1999:327).

In the late twentieth century the impact of communications and information technology has become truly global. Technology generally relates to the production and development of machinery designed to carry out tasks. The Industrial Revolution grew out of the mechanisation that could take over the work that had been previously done by hand operated tools coupled with capitalist organisational strategies. The development of sophisticated electronic technology is driving another revolution in communications and new forms of industry. Information technology is a key component of globalisation providing instantaneous access among associates across the world. Held et al (1999:94) refer to this as 'distance-shrinking' technology. This is mostly regarded as progress but there are serious concerns about the ways in which technology can carry out tasks that previously were the components of many different kinds of jobs, raising doubts about the future of work and leading frustrated individuals to antisocial behaviour and disaffection from both work and education. (Rifkin, 1996:121)

There is considerable debate about the impact of the claimed effects of environmental globalisation. Degradation of the environment is well documented and the debate centres around whether it is a naturally occurring phenomenon of alteration of form or if it is avoidable deterioration that is being caused directly by over consumption of resources and over production of pollution that is beyond the capability of the planet to neutralise or repair. Prior to the Industrial Revolution in the West, the collected impact of humanity on the environment was much less than that of natural causes of degradation. Nature dominated human activity whereas now human activity threatens to dominate nature (Giddens, 2001:609). The movement of people on a large scale from Europe, first to the Americas and later to Australasia, brought about geographical environmental changes through clearances for

farming and new urban centres of population, but the effects of the transfer of pestilence and disease were disastrous for aboriginal populations. These however did not tax the equilibrium of the environment to the same extent as the onset of polluting industrialisation which, as it gathered momentum, triggered damage to the environment that could not be contained by natural adaptation and compensation. Ever since, the extent of environmental problems has increased in both intensity and in geographical spread of impact. Chemical pollution from advanced industrialisation and the fall-out from modern travel, namely the automobile and the aeroplane, have made environmental problems global in scope and prompted multi-national efforts to quantify the effects and to seek solutions. Where environmental problems have only a local impact, for example in factory pollution, they can be dealt with locally, but where the impact is worldwide or contributes to a widespread problem with possible consequences for all of humanity, for example the condition of the oceans or of the atmosphere, the issues should be tackled through global collective action.

According to Giddens (2000:21), politicians of all sorts 'pay lip service to environmental issues' because of the difficulty in reconciling the encouragement of economic growth and the generation of jobs with ecological issues and responsibilities. It is the apparent clash between huge increases in global economic connectivity and efforts to protect the environment from global and local degradation arising from the increased consumption of resources and chemical pollution that is the biggest bone of contention for globalisation.

> By now it should be clear that our environment is becoming ever less capable of sustaining the growth impact of our economic activities. Everywhere our forests are overlogged, our agricultural lands over-cropped, our grasslands overgrazed, our wetlands overdrained, our groundwaters overtapped, our seas overfished, and nearly all our terrestrial and marine environment is overpolluted with chemical and radioactive poisons. Worse still, our atmospheric environment is becoming ever less capable of absorbing either the ozone-depleting gases or the greenhouse gases generated by these activities without creating new climactic conditions to which human beings cannot infinitely adapt. (Goldsmith, 1996:78)

Goldsmith's view above is expressed within a volume of essays making a case against a global economy and his claims are routinely refuted by protagonists of globalisation. Giddens

(2001:610), for example, reminds us that we do not know how far and for how long we can continue to seek to consume environmental resources but recommends caution and the advisability of either reducing consumption or finding alternative solutions. The notion of 'sustainable development' is now being used to encourage self-imposed limitations to consumption and the seeking of solutions to resource requirements that are less destructive and demanding of the environment.

A sceptical view of the concept of globalisation would argue that there is nothing new about the phenomena observed other than the speed of communication due to technological advances. Sceptics would claim that there is only evidence of growing interdependence through internationalisation and regionalisation. This view allows for the continued primary influence of nations along with the advance of neo-liberal policies and economics. The advance of western style neo-liberal economies has also, however, promoted new forms of influence or even dominance such as the World Bank or the International Monetary Fund along with multi-national businesses that have great cross-national impact that is often wider than that of many nation states. The emergence of such powerful players in fact lends credence to the argument of globalists for whom multinational companies and supra-national bodies represent evidence that globalisation is more than a conceptual notion and exists separately to economic considerations. The implications of economic considerations are, however, very powerful. An analysis of some economic aspects of globalisation, provided by Joseph Stiglitz (2002), throws interesting light on the impact of several influential players in global economics. Stiglitz served on the Council of Economics Advisors to President Clinton and later became chief economist and senior vice-president of the World Bank. He defined globalisation in an economic sense as " . . the removal of barriers to free trade and the closer integration of national economies" (p ix) and claimed that it has enormous potential for good in the world through improving the lives of people in poor nations, provided that this potential can be realised, otherwise the consequences can be dire:

> Globalization itself is neither good nor bad. It has the power to do enormous good, and for the countries of East Asia, who have embraced globalization *under their own terms*, at their own pace, it has been an enormous benefit . . . .. But in much of the world it has not brought comparable benefits. For many, it seems closer to an unmitigated disaster. (Stiglitz, 2002:20)

It was through having witnessed the operations of the World Bank and the International Monetary Fund (IMF) at close quarters that Stiglitz was moved to claim that economic globalisation has been mismanaged to the extent that developing countries have suffered worse economic failures than they would have done without IMF 'help' and that poor people have been made even poorer. He set out to show that the intentions of the World Bank and the IMF had been honourable at the outset but that strict adherence to the economic principles advocated by the Washington Consensus, that had been successful in the US, and were therefore held up as models of good practice, did not translate well to the unique circumstances in the countries that they set out to help. The Washington Consensus is a term coined in 1989 in relation to reforms intended to improve the economies of Latin American countries and which seemed to have general agreement among the economists of influential Washington based financial institutions. These agreements have had negative impact on the economies where they were applied. They developed a disproportionate significance and hence it was not recognised at first that they required urgent and ongoing review (Williamson, 2005; Gnos & Rochon, 2005; Clift, 2003). Stiglitz describes as 'mission creep' the subtle shifts in intentions that have blinded IMF economists to the realities of some developing nations' social and cultural clashes with the conditions imposed. In practice the IMF has moved beyond its original objectives of enhancing global stability and ensuring that countries threatened with recession can have funds available to stabilise their economies. It began to pursue the interests of the financial community as defined mainly by US style economics and therefore found parts of its mission to be at times conflicting. The pursuit of 'market fundamentalism' has led to widespread criticism and mistrust. Through his analyses Stiglitz shows that global intentions and actions are not always in harmony but he is confident that globalisation, in the shape of international economic institutions, can reform to realise its

potential for good. While we cannot undo the influence of globalisation thus far, we can perhaps try to make it work better through better regulation of and by the institutions that make the rules (Stiglitz, 2002: 222).

There exists an earlier book by Burbach et al, (1997) which surprisingly has the same title *Globalization and its Discontents* that Stiglitz reused in 2002. The use of the same title is surprising, but Burbach et al has a subtitle (*The Rise of Postmodern Socialisms*) and the two books powerfully illustrate the diversity of opinion regarding the impact and influence of globalisation. Where Stiglitz wrote from a pro-capitalist position to point out some of the failings of the movement and management of global capital and the need for review of the strategies employed, Burbach and his colleagues wrote from far left Marxist perspectives about their views on exploitative practices that they believe are the result of the capitalist economic system. That Stiglitz used the same title as an earlier volume is interesting but the comparison serves as a reminder of the range of positions that can be taken with respect to globalisation and even its 'discontents' represent a spectrum of views.

6.2 The Neoliberal Policy Response

6.2.1 Definitions of Neoliberalism

The term neoliberalism is often referred to in connection with globalisation but, although the terms are used interchangeably at times, there are different origins and developmental paths for each. Neoliberalism relates particularly to economic aspects of globalisation, is connected to freedom of commerce and has political origins that have allowed it to become the dominant discourse of economics in western nations (Olssen & Peters, 2005: 314). Classical liberalism is described by Olssen et al (2004: 136) as when individuals are: "characterised as having an autonomous human nature and can practise freedom," whereas in neoliberalism, the individual is expected by the state to take on the role of "an enterprising and competitive entrepreneur." Neoliberalism is most commonly used to describe global market liberalism, or capitalism, that advocates policies to allow and support free trade:

> Neoliberalism is a philosophy in which the existence and operation of a market are valued in themselves, separately from any previous relationship with the production of goods and services, and without any attempt to justify them in terms of their effect on the production of goods and services; and where the operation of a market or market-like structure is seen as an ethic in itself, capable of acting as a guide for all human action, and substituting for all previously existing ethical beliefs. (Treanor, 2003: 6)

Neoliberal policies seek to remove any barriers to the free movement of capital such as taxes, tariffs or state government controls and therefore organisations such as the G8 group (comprising the US, Britain, France, Germany, Italy, Canada, Japan and Russia) have emerged, made up of nations coming together to regulate exchange in a wider forum than that of individual nation states. Transnational (as in Western style national) economic organisations such as the World Trade Organisation, the World Bank and The International Monetary Fund seek to arrange agreements that support and advance neoliberal economic policies globally.

Just after World War II a group of 'liberals', so called because of their concerns to preserve ideals of personal freedom, met in a group called the Mont Pelerin Society (see Harvey, 2005: 20) to discuss their views that freedom of thought and values of civilisation were being eroded by groups who wanted to exercise overall power. They became known as neoliberal because of their belief in free market principles coupled with Adam Smith's early notion of the 'hidden hand' of the market being the best way to guide and regulate human commerce (Harvey, 2005: 20). The resulting neoliberal principles were against any centralised control or state intervention in the free operating of the market as the foundation of the economic policies of nations. Economic conditions in Western style nations became stagnant in the nineteen seventies and neoliberal policies were thus given an opening and had an opportunity to develop and flourish. Margaret Thatcher's election as Prime Minister in the UK in 1979 followed by Ronald Reagan's election as US President the following year saw the emergence of free market policies that brought about sweeping changes in the politics and economics of both of these major national power bases.

A wave of innovations occurred in financial services to produce not only far more sophisticated global interconnections but also new kinds of financial markets based on securitization, derivatives, and all manner of futures trading. Neoliberalization has meant, in short, the financialization of everything. (Harvey, 2005: 31)

In theory, neoliberal states should be characterised by "strong individual property rights, the rule of law, and the institutions of freely functioning markets and free trade" as essentials for guaranteeing individual freedoms (Harvey, 2005: 64). The elimination of poverty would thus be achieved by the 'trickle down' of benefits through all levels of society thanks to the anticipated success of free markets and free trade.

6.3 The Third Way Policy Response

The form of socialism that developed in many Western nations after World War II was called social democracy, social because it placed emphasis on social welfare and more democratic because it was built on parliamentary democracy. Although similar systems operated in many western nations there were differences of emphasis and scale and each was a national system in its own right, with economic strategies and arrangements largely based within each country. Neo-liberalism on the other hand is global in outlook and influence (Giddens, 1998:14). The famous writer on Third Way politics in the UK, sociologist and social scientist Anthony Giddens (see Chapter 4), used the term to refer to social democratic renewal which he claimed was necessary if social democracy was to survive. Giddens recognised that the label 'third way' and attempts to find a new political route between right and left were not entirely new, having had roots in post war social democracy before disappearing to re-emerge in the nineteen nineties as a possible way forward from discredited socialism and uncomfortable neoliberalism. According to Giddens there are six main dimensions to third way politics: Reconstruction of government; The cultivating of civil society; Reconstruction of the economy, Reform of the welfare state; Ecological modernisation; and Reform of the global system. When New Labour were elected to form a new government in 1997 they had to take the country forward from the basis of a long period

of neoliberal policy that was the legacy of the outgoing Conservative government and to do this they had to reform their own political stance from Old Labour socialist policies. Giddens believed this to be necessary to equip governments to respond to 'the twin revolutions of globalization and the knowledge economy' (2000:163). It was necessary to maintain commitment to "values of social justice and solidarity" as well as "to engage with the realities of the new global order"(Giddens, 2001: 436). The result was a form of third way politics attempting to steer a centre course that would avoid being labelled as left- or right-wing. (see Figure 10 below)

Figure 10

Classical Social Democracy (the old left)	Thatcherism, or Neoliberalism (the new right)	The third way programme
Pervasive state involvement in social and economic life State dominates over civil society Collectivism Keynesian demand management, plus corporatism Confined role for markets: the mixed or social economy Full employment Strong egalitarianism Comprehensive welfare state, protecting citizens 'from cradle to grave' Linear modernization Low ecological consciousness Internationalism Belongs to bipolar world	Minimal government Autonomous civil society Market fundamentalism Moral authoritarianism, plus strong economic individualism Labour market clears like any other Acceptance of inequality Traditional nationalism Welfare state as safety net Linear modernization Low ecological consciousness Realist theory of international order Belongs to bipolar world	The radical centre The new democratic state (the state without enemies) Active civil society The democratic family The new mixed economy Equality as inclusion Positive welfare The social investment state The cosmopolitan nation Cosmopolitan democracy

Figure 10. Summary of political philosophies taken from *The Third Way: The Renewal of Social Democracy,* Anthony Giddens, 1998, Polity Press.

6.4 Globalisation and Education

"Since the late 1970s the political economy of global capitalism has radically altered conditions of life." (Aronowitz, 2004: x) The shifting of business to far-flung parts of the globe has removed many of the steady, well-paid jobs in low, intermediate, and even some high-skill technology industries away from the traditional industrially developed countries. The hopes that these jobs could be replaced by service industry requirements and IT based jobs, as predicted by writers on 'the end of work thesis' such as Rifkin and Gorz (see Chapter 5), have been on the whole misplaced. There are few good working-class jobs left for young people who have increasingly been encouraged to gain some credentials but not been able to use them to gain positions or advancement against mounting competition. Changes have taken place in the constitution of capitalism in a global economic environment from an economy of 'productive labour' to a new era where the economy is driven by the circulation of capital through the fluctuations of global markets.

> . . . global repositionings also have implications for the ways that scholars
> theorise about the relationship between school, work, class and capital, and how
> we make sense of youth's school and work identities. (Dolby & Dimitriadis,
> 2004: 8)

There is evidence of contemporary societies showing greater "fragmentation, pluralism and individualism" (Kumar, 1995: 121) brought about by changes in the ways in which work is organised and technology harnessed. Political, cultural and economic life is now strongly affected by changes in global flows of influence.

Roger Dale (2000) has examined approaches to dealing with issues of globalisation in relation to education policy and identifies two in which he contrasts particular aspects. Dale labels these as a Common World Educational Culture and a Globally Structured Agenda for Education. The former arises from widening of education to embrace international and worldwide needs and concerns of learners and the latter positions education within a political economy that emphasises globalisation. Both show that education and global factors are entwined but the relationship can be understood differently from different perspectives. See

Figure 11 below where I have summarised Dale's outlines and placed them in a table where they can be easily seen for comparison.

Figure 11

	CWEC	GSAE
Approaches to globalisation and education issues	Common World Educational Culture	Globally Structured Agenda for Education
Description	Development of national education systems and curricular categories is to be explained by universal models of education, state and society rather than by distinctive natural factors.	International political economy - changing nature of the world capitalist economy driving force of globalisation and seeks to establish effects on educational systems.
Purpose	To demonstrate and influence these world models	To provide answers to questions about what goes on in the area of education.
View of education	'education' is a resource	'education' is a topic
Terms of title	World - connotes an international society or polity of individual autonomous nation-states - an international community.	Global - social and economic forces operating supra- or trans-nationally - rather than internationally - to break down or override national boundaries and reconstruct relations between nations.
	Culture - implies shared, and equally available, set of resources at high level of generality.	Structured Agenda - systematic set of unavoidable issues for nation-states framed by their relation to globalisation.
Understanding of Globalisation	World polity is reflection of the Western cultural account, based around a particular set of values that penetrate every region of modern life.	Set of political-economic arrangements for the organisation of the global economy, driven by the need to maintain the capitalist system.
	A supra-national set of ideas, norms and values that inform -- even script -- national responses to a set of issues.	Constructed through these related sets of activities: economic, political, cultural hyper -liberalism, governance without government, commodification and consumerism.
Core problems	The set of rules based on modern culture "stresses, centrally, the primacy and legitimacy of nation-states as organisational.	Frame of the agenda of the state, and all its component parts, including education, in capitalist society.

Figure 11: Summary of main aspects of two approaches to globalisation and education issues. From the work of Roger Dale, (2000)

Just as world views on economics and work have been altered due to the pervasiveness of neoliberal rationality, education has not escaped the rush to reorganise according to market imperatives.

> Under neoliberalism, we are to accept that the purpose of education is to promote economic growth rather than social well-being, that efficiency, even in education, is achieved only through competition, and that standardised tests are required to provide objective assessments so that inefficient schools can be identified, improved, or eliminated. (Hursh, 2007: 116)

There are several critiques of the impact of globalisation and the influence of neoliberalism on education. Much of what has been written arises from dissatisfaction felt by educators who are opposed to neoliberal and neoconservative influence on policy and comment from a left wing stance. See for example Apple (1996, 2001, 2006) who writes from a US perspective and Hill (2005, 2007), who is UK based, but both of whom situate their national observations within global understandings of economic and social impact. Michael Apple has written extensively on the impact of neoliberal, neoconservative and New Right policies and practices on schools both directly, as a result of education policy, and indirectly, through shifting positions within society in relation to religion, politics and economics that also affect education within the US. He examines the effects of neoconservative tightening of state monitoring of education, with regards to standards and modes of operating, which is used to keep control of what is taught and ensure that it prepares school students for participation in the market economy within which they undoubtedly now live. He identifies that:

> . . . . [a] power bloc combines business with the New Right and with neoconservative intellectuals. Its interests are not in increasing the life chances of women, people of colour, or labor. Rather it aims at providing the educational conditions believed necessary both for increasing international competitiveness, profit, and discipline and for returning us to a romanticized past of the "ideal" home, family, and school. (Apple, 1996: 27)

Apple also outlines his view of the role of neoliberals within an altering landscape of education in the US. He believes that they support the notion of schools being for consumers and not for the benefit of service workers such as teachers and bureaucrats. "For neoliberals, the world in essence is a vast supermarket. "Consumer choice" is the guarantor of

democracy." (Apple, 2001:39). The neoliberal approach is to seek to weaken state control of education to allow the market to influence the ways in which schools actually develop. This is done both by encouraging economic aims for education and by placing education itself in a market driven context. At the same time, due to the rolling out of a tide of individualism, social democratic goals for education are losing popularity with working class and middle class groups. Some examples of how to operate differently in the face of such a neoliberal and neoconservative onslaught on the US public school system are provided by Apple and Beane (1999) in an inspiring collection of case studies entitled *Democratic Schools*. The school reforms described are based on a variety of projects that all manage to provide more control for students and parents about what and how the schools' students are taught. The projects involved are all arranged differently, but in each case the students are empowered to participate and have a voice concerning the direction of their learning and opportunities to contribute to discussion about and management of the curriculum in their own schools. The stories are thought provoking but are each instigated by visionary leaders who are able and committed enough to take what are huge personal risks for their own careers and even continued employment. It is not easy to take a stand against such a strong tide of neoliberal, and in many cases popular, sets of guiding principles for education. A further interesting example, cited by Apple (2007), of alternative strategies to neoliberal projects, is the Citizen School Project in Brazil (Gandin, 2007:179) where local groups have managed to use opportunities to develop citizenship education in spaces between, and along with aspects of, the hegemonic school programmes and therefore to shift the emphases of the curriculum to more collaborative and democratic practices that support social justice.

Dave Hill (2005, 2007) also writes about the all-pervasiveness of neoliberalism and its effects on education in the UK and wider contexts. He notes the changing emphases in Britain and elsewhere from a nineteen sixties approach of 'education for education's sake' supported for 'the full flowering of the individual' that would be fair and bring benefit to all of society, to education organised for the 'production of human capital, for the good of the economy'. "We are in an era of *homo economicus"* (Hill, 2007:209). Hill also makes reference to the impact

of neoliberalism on teacher education policy, where there are now multiple routes into teaching, many through new options that are school and classroom based, which make some efficiency based sense and appeal to many, but in fact remove the theoretical background that is essential for developing critical skills and informed practice. (Hill, 2007: 215)

The critiques and commentaries that have been mentioned here are all from left or far left perspectives. They all highlight the impact of globalisation and particularly neoliberal and neoconservative restructuring of education in a number of countries. Most seem to accept that the policy shifts and structural changes that have taken place in education are inevitable given the overall development of global capitalism and the way in which education is used as a formational influence. Having been locked in opposition for more than half a century, capitalism and socialism, at least in its communist manifestation, had seemed like natural adversaries. "Since the end of the Second World War, Americans have celebrated our nation's apparent virtues by contrasting them with Soviet communism" (Reich, 1992: 317). The collapse of socialist states towards the end of the twentieth century has allowed capitalist states to see themselves as having being vindicated. David Harvey (2005) writes about the 'construction of consent', explaining how in Chile, the US and the UK, New Right, neoliberal and neoconservative policies were able to be introduced to populations by choosing the optimum time for offering solutions and alternatives when welfare capitalism was under strain. The new policies were swept in against ineffective opposition and, in the UK, Thatcherism held sway and has been succeeded by New Labour, anxious to create a credible response to the global economy, without any significant alteration in approach, and thus strengthening the inevitability of altered relationships among the economy, work and education. This taken-for-granted approach to the supremacy of markets is commented upon by Terri Seddon in an analysis of educational policy research in England (Seddon, 1997). Seddon claims that a swathe of research into the marketisation of education in England merely concluded that the said marketisation was indeed taking place, such that there was a 'conventional wisdom' developing that accepted rather than criticised the occurrence and represented an example of researchers being caught up by the prevailing discourse. In a

Foucauldian sense, the absence of any effectively competing discourse allowed the neoliberal discourse to flourish and wield its powerful influence. It is perhaps a reflection on the status of educational research and its lack of power to influence policies that derive from hegemonic political and economic readjustments. Jack Demaine (2003) concurs with this notion when he writes:

> Although sociologists of education have been at the forefront of *criticism* of new Right thinking on education, in policy terms they have for the most part been 'outsiders', commenting on rather than influencing developments in education. (Demaine, 2003: 130)

The work of the renowned education policy analyst and educational sociologist Stephen Ball provides an example of one person's attempts to scrutinise policy developments in the last twenty years or so (see e.g. Ball, 1990, 2003, 2006, 2007) and to highlight the connections between those politically and economically driven developments and his concurrent social analyses. His work in some ways fits with Seddon's above claim but at the same time breaks free of the mould, particularly by offering mainly social ethnographical analyses but also by avoiding putting his comments into sets of pros and cons in a binary arrangement. Rather he explores a whole range of complexities of the social relations to politics and policy that his work unearths to the extent that it has been described as 'a series of 'unsettlings':

> . . . (Ball's writing) unsettles the location, function, power and growth of knowledge, especially for policy and research; . . . unsettles structured, systematic, deterministic, functional . . . theories of education and schooling processes; . . . unsettles taken-for-granted articulations of different groups/classes within education; . . . and unsettles explanations of the state. (Crump quoted in Ball, 2005: 3)

Stephen Ball thus attempts to deconstruct what appears to be taken-for-granted within a context of education systems wrangling with the effects of globalisation and to show that what seems to be consistent can in fact be complex and diverse. Within his range of policy related interests he has explored both the impact of market forces on education policy and indeed the marketisation of education itself. Ball claims that education is now underpinned

by a market formulation, the outcomes of which are intended:

> . . . to raise educational standards and improve the efficiency of schools by modelling the state system as a 'romanticised' and sanitised version of the dynamics of the free market. (Ball, 2006, 81)

Ideas about and comments on globalisation and neoliberalism, and how they are affecting education, as explored in this chapter, indicate something of the extent of the changes and redirections with which educators and education policy makers are having to contend. In so doing it addresses aspects of questions 3,6,7 and 8 from Chapter 1. The work-related purposes of education in this context become at the same time more specific for individual efficiency and more universal for global effectiveness. Global interconnectedness and market driven imperatives are clearly making new and different demands on work and on education such that education for work and general education both require that young people become aware of the nature of the social, political and economic contexts within which they will be required to function. This in turn has implications for educators and education policy makers and for their understanding of contexts and implications that will be discussed further in Chapter 10. A prominent feature of post-industrial economies, global markets and information/communications systems is the production and application of knowledge which will be discussed in Chapter 7.

Chapter 7 - The Knowledge Economy and its Impact Upon Work and Education

In our post-industrial, global society and economy as already described, the all-pervasiveness of knowledge as a prized commodity has been acknowledged. It is important in every aspect of our economic and social lives. If almost every occupation either produces knowledge or depends on the reproduction of knowledge, then clearly education must be prepared and at the forefront of development of the skills required to access and apply appropriate knowledge. Teachers possess subject knowledge and pedagogical knowledge and would find it useful in their work-related practice to have extensive awareness of the contemporary significance of knowledge and the knowledge economy. In this chapter knowledge and the concept of knowledge economy are examined and their implications for both work and education are explored.

7.1 Conceptualising the Knowledge Economy

> Adam Smith in the Wealth of Nations said a country's wealth lies not in the amount of silver in its vaults but in the labour and enterprise of its people. (Horne, 1996)

The nature of work has changed as discussed above in Chapter 5, so that there is now an emphasis on information technology and microelectronics manufacturing and a shift from labour intensive to knowledge intensive industries. Manufacturing work has been reduced to much lesser proportions in most western style economies. Economics in industrial society recognised two main factors of production namely labour and capital, but growth in technology has made knowledge an agent in economic systems so that it now joins labour and capital as a third factor and has arguably become the most important. In identifying 'theoretical knowledge' as a dimension of post-industrial society, Daniel Bell (1974) predicted the onset of the importance of knowledge as a commodity in itself. Leadbeater (1999: 36) describes knowledge as the critical factor for economies to compete and to generate wealth and wellbeing. He also remarks that what knowledge workers do is situated in 'thin air' so that "Most of us make our money from thin air: we produce nothing that can be weighed,

touched or easily measured" (ibid: vii). Education and technology have become central to economic growth as detailed in Paul Romer's (1986, 1990) charting of 'new growth theory' where indeed Romer sees technology, and its underpinning knowledge, as intrinsic to economic systems. Applications of technology have taken over most of the factory type tasks that were once carried out by massed industrial workers and what still needs to be produced manually has in many cases been relocated to countries where labour and resources are cheap. The sorts of work activities that have been replaced by automation are wide ranging and even jobs that were historically extremely labour intensive such as agriculture have been transformed by machinery that removes the need for human intervention from the site of the action (Rifkin, 1995:109; Drucker, 1969:15). In contrast to the shrinking necessity for jobs that require hands-on labour and minimal skill there is a strong growth in the need for workers with the ability to generate ideas and apply a range of skills that are more sophisticated and cerebral rather than manual.

There is a new economy that is dependant upon knowledge workers and educators in areas such as computers, finance, software and telecommunications and focussed on producing knowledge and making use of information (Giddens, 2001:294; OECD, 1996:10). It is knowledge that is the commodity in demand, that is most necessary for the growth of businesses and that will have the greatest impact on economics in a global market place. This new economy that is evolving can be seen as a next stage in a process of structural transformation and different terminology is being devised to describe it. Following the reduction in industrial production, post-industrial society has been variously labelled, for example, as the information society, the learning society and the knowledge society as well as the knowledge economy, all of which share a common realisation that knowledge has overtaken other forms of production in working environments (Guile, 2003:88). Rikowski (2003:160) describes the shift to a knowledge economy as a knowledge revolution and a further stage in the development of capitalism: the agrarian revolution; the industrial revolution and now; the knowledge revolution.

In 2006, Ian Brinkley wrote a report for the Work Foundation entitled *Defining the Knowledge Economy*. In it he described a study that attempted to find a focused definition of the knowledge economy that could then be used to measure, with some degree of robustness, the impact of the knowledge economy, the growth of the knowledge workforce and the scope of the knowledge based firm, in such a way that reliable comparisons could be made. This proved to be a vague and difficult task, not least because interpretations of the knowledge economy lack precise definition and rely on concepts that are themselves difficult to pin down.

Figure 12

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Definitions of the knowledge economy

"the role of knowledge (as compared with natural resources, physical capital and low skill labour has taken on greater importance. Although the pace may differ all OECD economies are moving towards a knowledge-based economy" (OECD, 1996)

". . . one in which the generation and exploitation of knowledge has come to play a predominant part in the creation of wealth. It is not simply about pushing back the frontiers of knowledge; it is also about the most effective use and exploitation of all types of knowledge in all manner of economic activity" (DTI Competitiveness White Paper, 1998)

"the idea of the knowledge driven economy is not just a description of high tech industries. It describes a set of new sources of competitive advantage which can apply to all sectors, all companies and all regions, from agriculture and retailing to software and biotechnology" (New measures for the New Economy, report by Charles Leadbeater, June 1999)

"economic success is increasingly based upon the effective utilisation of intangible assets such as knowledge, skills and innovative potential as the key resource for competitive advantage. The term "knowledge economy" is used to describe this emerging economic structure" (ESRC, 2005)

"the knowledge society is a larger concept than just an increased commitment to R&D. It covers every aspect of the contemporary economy where knowledge is at the heart of value added - from high tech manufacturing and ICTs through knowledge intensive services to the overtly creative industries such as media and architecture" (Kok Report, 2004)

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Figure 12: Definitions of the knowledge economy cited by Ian Brinkley in *Defining the Knowledge Economy*, Knowledge economy programme report for the Work Foundation, first published July 2006.

Brinkley's own definition of the knowledge economy is, "what you get when firms bring together powerful computers and well-educated minds to create wealth" (2006: 3). See Figure 12 above for the selected definitions that he used to point out that conceptions of the knowledge economy are vague or rest on tacit awareness of the contexts in use. Within an economic context the knowledge economy does not operate under the same principles as those of traditional economies. David Skyrme (1997) identified a set of characteristic ways in which the knowledge economy differs from the traditional economy:

- The economics is not of scarcity, but rather of abundance. Unlike most resources that deplete when used, information and knowledge can be shared, and actually grow through application.
- The effect of location is diminished. Using appropriate technology and methods, virtual marketplaces and virtual organizations can be created that offer benefits of speed and agility, of round the clock operation and global reach.
- Laws, barriers and taxes are difficult to apply on solely a national basis. Knowledge and information 'leak' to where demand is highest and the barriers are lowest.
- Knowledge enhanced products or services can command price premiums over comparable products with low embedded knowledge or knowledge intensity.
- Pricing and value depends heavily on context. Thus the same information or knowledge can have vastly different value to different people at different times.
- Knowledge when locked into systems or processes has higher inherent value than when it can 'walk out of the door' in people's heads.
- Human capital - competencies - are a key component of value in a knowledge-based company, yet few companies report competence levels in annual reports. In contrast, downsizing is often seen as a positive 'cost-cutting' measure. (Skyrme, 1997)

Michael Peters (1999) traces back the origins of the term 'knowledge economy' almost fifty years to early writing (e.g. Drucker, 1959) about the role of knowledge, moving on to the importance of education in knowledge production, as expanded by Daniel Bell (1973) and Alain Touraine (1972), writers on post-industrialism whose work has been referred to in

Chapter 5. Education was being theorised as a form of human capital, intrinsic to the development of knowledge in a modern economy.

David and Foray (2003) have examined the shifts in emphasis from production based to knowledge-based economies in several countries. Claiming that both have been evident in many countries for centuries, they argue that the shifts are coming about because of the rapidly increasing rate of development of knowledge accumulation:

> Economic historians point out that nowadays disparities in the productivity and growth of different countries have far less to do with their abundance (or lack) of natural resources than with the capacity to improve the quality of human capital and factors of production: in other words, to create new knowledge and ideas and incorporate them in equipment and people (David & Foray, 2003:21)

There is a consequent increase in the proportion of jobs in the areas of knowledge production and information transfer.

Elements found in contemporary knowledge economies are listed by Christopher Winch (2003:61). He refers to 'high levels of initial general education' including numeracy, literacy and general knowledge; the 'role of science and technology in creating products and services' requiring applied theoretical knowledge; the 'availability of information' along with selection and organisational skills to transform it into manageable knowledge; and 'high-skill economic activity as opposed to low-skill' where skills refer to applied knowledge.

In the UK, a Government White Paper entitled Our Competitive Future (DTI, 1998a) set out the then fairly newly elected New Labour Government's aspirations for 'building the knowledge driven economy' and thus improving the UK's economic competitiveness among major trading nations. In the analytical report accompanying the white paper, the knowledge economy is described thus:

> A knowledge driven economy is one in which the generation and the exploitation
> of knowledge has come to play the predominant part in the creation of wealth.
> It is not simply about pushing back the frontiers of knowledge; it is also about

the more effective use and exploitation of **all types of knowledge** in **all manner of economic activity**. (DTI, 1998b, §1.5) (emphasis in original)

Businesses had to become more competitive by responding to changes in the global economic environment and finding ways to maximise their resources, both material and intellectual, with the aim of increasing the UK's competitive advantage. Perhaps not every worker is engaged in producing knowledge within the knowledge economy but at the very least every individual is a consumer of knowledge driven production and, as stressed by Bayliss (2001:13), even the knowledge economy needs consumers as well as producers. It is the production and development of knowledge, made possible and sustained by the instant effects of communications technology that is the new area of growth. Knowledge workers are the new mass of employees. The nature of work is being changed by this shift in emphasis and there are implications for educators whose role includes that of equipping new generations with appropriate skills and attitudes to make them employable in new style economies. This post-industrial phenomenon, sometimes referred to as the Information Age, is what has become known as the Knowledge Economy.

7.1.1 The Importance of Knowledge

> Knowledge and information is being produced today like cars and steel were produced a hundred years ago. Those, like Bill Gates, who know how to produce knowledge and information better than others reap the rewards, just as those who knew how to produce cars and steel a hundred years ago became the magnates of that era. (Stiglitz, 1999:37)

Knowledge is now considered a central component of production, whereas in the past it was a supportive external influence. Knowledge itself is now considered the commodity, albeit a rather different and often virtual type of commodity. One of the most striking differences is that economies usually deal in surplus-scarcity environments but knowledge as a commodity doesn't comply with the usual conditions. Thomas Jefferson used the analogy of sharing light from a flame, and the phenomenon whereby the new light comes from, but does not diminish, the original flame, to speak about the sharing of knowledge. It is possible to gain insight or to

learn from another person without taking away or diminishing that other person's knowledge. Although knowledge is spoken of as a commodity we can share it endlessly without diminishing the knowledge base of the source. Knowledge and information are in plentiful and ever-increasing supply. It is the capacity to make the best use of them that is in danger of being scarce. Brinkley (2006:5) says knowledge is the "ultimate economic renewable". The stock of knowledge does not diminish with use and indeed its value to an economy often comes from sharing it. Only in some cases do we use trade secrets, copyright, patents etc. to try to give individuals or companies reserved rights to knowledge and the complexities of intellectual property laws are proving mysterious and challenging for most countries' legal systems.

New Zealand's Ministry for Economic Development (MED), in presenting a view of and explanation for the knowledge economy, claimed that 'know-why' and 'know-who' matter more than 'know-what':

> There are different kinds of knowledge that can usefully be distinguished. Know-what, or knowledge about facts, is nowadays diminishing in relevance. Know-why is knowledge about the natural world, society, and the human mind. Know-who refers to the world of social relations and is knowledge of who knows what and who can do what. Knowing key people is sometimes more important to innovation than knowing scientific principles. Know-where and know-when are becoming increasingly important in a flexible and dynamic economy. Know-how refers to skills, the ability to do things on a practical level. (MED, 1999:2)

These categories have been developed from an OECD explanation of different kinds of knowledge (0ECD, 1996b:12). (See Figure 13 below for more detail) The MED also recognised the importance of 'tacit knowledge', that is knowledge that is gained through experience, as every bit as important as formal, codified, structured and explicit knowledge that may be acquired through formal education or training. Lifelong learning is also supported with companies being advised to allow the growth of 'learning capacity' throughout their organisations. Brinkley (2006:5) suggests that one of the key features of the knowledge economy is that it allows a more methodical exploitation of tacit knowledge that is acquired

'on-the-job' through individuals' experience. Tacit knowledge can take a while to amass and is likely to result from, for example, serving an apprenticeship, building technical or linguistic

Figure 13

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Knowledge Codification

- Know-what refers to knowledge about *"facts"*. How many people live in New York? What are the ingredients in pancakes? And when was the battle of Waterloo? are examples of this kind of knowledge. Here, knowledge is close to what is normally called information - it can be broken down into bits. In some complex areas, experts must have a lot of this kind of knowledge in order to fulfil their jobs. Practitioners of law and medicine belong to this category.

- Know-why refers to scientific knowledge of the principles and laws of nature. This kind of knowledge underlies technological development and product and process advances in most industries. The production and reproduction of know-why is often organised in specialised organisations, such as research laboratories and universities. To get access to this kind of knowledge, firms have to interact with these organisations either through recruiting scientifically-trained labour or directly through contacts and joint activities.

- Know-how refers to skills or the capability to do something. Businessmen judging market prospects for a new product or a personnel manager selecting and training staff have to use their know-how. The same is true for the skilled worker operating complicated machine tools. Know-how is typically a kind of knowledge developed and kept within the border of an individual firm. One of the most important reasons for the formation of industrial networks is the need for firms to be able to share and combine elements of know-how.

- This is why know-who becomes increasingly important. Know-who involves information a bout who knows what and who knows how to do what. It involves the formation of special social relationships which make it possible to get access to experts and use their knowledge efficiently. It is significant in economies where skills are widely dispersed because of a highly developed division of labour among organisations and experts. For the modern manager and organisation, it is important to use this kind of knowledge in response to the acceleration in the rate of change. The know-who kind of knowledge is internal to the organisation to a higher degree than any other kind of knowledge.

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Figure 13: The Knowledge Based Economy, OECD Paris 1996, page 12

expertise or developing knowledge of a particular market. Codified knowledge on the other hand is anything that can be written down and stored or transferred in data form.

In many cases the terms 'knowledge ' and 'information' are used interchangeably in discussion and comment about the knowledge economy. David and Foray (2003:50) stress the difference between knowledge and information, explaining that the possession of knowledge enables individuals to act upon it either physically or intellectually whereas information is merely 'formatted data' that are not knowledge in themselves but require knowledge of how to interpret and use them. Information is a codified form of knowledge and we can nowadays access huge amounts of it at the touch of a button. Leadbeater (1999) also distinguishes clearly between information and knowledge as follows:

> Information can be transferred in great torrents, without any understanding or knowledge being generated. Knowledge cannot be transferred; it can only be enacted, through a process of understanding through which people interpret information and make judgements on the basis of it . . . We do not need more information; we need more understanding. Creating knowledge is a human process, not a technological one. More information is not better information . . . We are deluged by useless information. (Leadbeater, 1999:29)

Although Leadbeater explains above that knowledge cannot be transferred in an exchange or 'passing on' sense in the same way as with information, universities world wide claim to be engaged in the business of 'knowledge transfer' as one of their key activities along with teaching and creating new knowledge through research. It has come to be understood as the exchanging of good ideas, research results, experiences and skills among universities across the higher education community and between universities and other research organisations, business, government, the public sector and the wider community. Innovative new products, services and policies are developed as a result of knowledge transfer between researchers and research users (ESRC, 2005). Universities now depend on the income from knowledge transfer as a third stream of funding to complement their traditional funded missions of teaching and research and Universities Scotland (2007) claims that Scotland is particularly efficient at commercialising and capitalising on research.

As economies seek ways of winning some competitive advantage over each other, the ways in which they develop and grow knowledge from information becomes crucially important. This growth can derive both from new knowledge that is discovered or invented and from the spread and expansion of existing knowledge that has been built upon as the basis for development. A knowledge economy is one that can make the best uses of its knowledge assets and its knowledge building capacity.

> The definition of a knowledge driven economy . . . . follows from an understanding of knowledge itself. It is an economy in which the generation and the exploitation of knowledge have come to play the predominant part in the creation of wealth. It is not simply about pushing back the frontiers of knowledge; it is also about the more effective use and exploitation of all types of knowledge in all manner of economic activity. (Coates & Warwick, 1999:12)

These writers also put forward four suggested factors that are increasing the pace of change in forms and uses of knowledge, namely: new information and communications technology; rapid scientific progress; global competition and; changes in tastes, lifestyle and leisure that go with increased incomes. All of these are necessary means of developing knowledge within a knowledge economy.

Christopher Winch (2003:52) stresses the importance of distinguishing and understanding different forms of knowledge in order that economic and educational institutions can decide how to organise and conduct their practices. He gives details of three kinds of practical and propositional knowledge which are described and expanded upon in the following:

- *Non-discursive practical knowledge* - practical knowledge, perhaps skill or manual dexterity, that is possessed but not articulated. It has a kinaesthetic basis and the user is in control but cannot explain how the skill was acquired other than that it was practised. Examples would be the dexterity in moving and manipulating the controls of a forklift truck or racket control in a sports setting. It is difficult to describe how such knowledge has been acquired because some aspects will be beyond the learners' awareness. Some airline pilots, interviewed in a television documentary about

aeroplane crashes that had occurred while set on automatic pilot control, discussed the benefits of manual control and the sensation that they could read how planes were behaving through the feel of handling the controls. This is similar to being expert at driving a car or playing a musical instrument where an affinity with the task has developed that cannot be explained for others to follow suit. They are individual experiences.

- *Discursive practical knowledge* - this is the aspect of tacit knowledge the acquisition of which can be articulated. The example of learning how to cook a dish from a recipe can explain this type of knowledge. A recipe is a set of practical instructions that will enable an individual to take the described steps and end up with a successful version of the desired dish. Although there may be some required pre-knowledge of the use of equipment, it is nevertheless possible to follow a cooking recipe for the first time and make a successful product. A teacher is not usually required, as the use of a recipe or technical manual involves following instructions rather than putting theory into practice.

- *Applied technical knowledge* - is knowledge of a set of norms or standard information and of how to apply them in appropriate situations. This kind of knowledge is critically important to modern industrial and post-industrial economies. Examples are laws and legal precedents applied by the legal profession or the laws of physical sciences that are routinely applied to scientific research and knowledge transfer.

If knowledge is the biggest asset that an individual can have in a knowledge-intensive economy then knowledge capital, the accumulated knowledge and the knowledge potential of the workforce, is the biggest asset of knowledge based companies. To remain competitive such companies must nurture and enhance this knowledge that is so crucial to their competitive operation and advantage. Alan Burton-Jones (1999, 2003) has developed a technique to assist in identifying and mapping existing knowledge and devising strategies for enhancing it. See Figure 14 below for a diagram of areas to be explored in identifying knowledge assets and gaps, both explicit and tacit, in organisations.

In addition to recording 'what we know we know' and identifying 'what we don't know we know', both of which can be defined as knowledge assets, organisations need to identify knowledge gaps. Those gaps that can be defined or specified fall into the category of 'what we know we don't know', which needs to be addressed by continuous monitoring of the business environment. The strategic importance of exploring for new knowledge as well as identifying and exploiting existing knowledge assets, underscores the importance of learning in the new economy. (Burton-Jones, 2003:144)

Organisations engaged in operating within the knowledge economy need to organise strategies for maximising their knowledge potential and predicting their future knowledge needs. According to Burton-Jones (1999) this can be done through 'knowledge growth strategies' and he has devised a Knowledge Growth Model to assist in the process. Progressing through the six stages of this model is intended to stimulate knowledge growth and maximise knowledge returns in organisations.

Figure 14

	What we know we know	What we know we don't know
EXPLICIT	What we know we know	What we know we don't know
TACIT	What we don't know we know	What we don't know we don't know
	KNOWLEDGE ASSETS	KNOWLEDGE GAPS

Figure 14: Mapping organisational knowledge. Alan Burton-Jones (2003:144)

The stages are as follows:

Stage 1 - *knowledge recognition* - an initial scanning and positioning phase. Insights acquired into current intellectual capabilities. Evaluate and link to strategic and operational goals and performance factors. Involves knowledge mapping, gap analysis, identification of critical learning.

Stage 2 - *knowledge engineering* - assess strategic relevance of categories of human and structural knowledge assets. Create forecast of strategic knowledge demand and supply. Predict internal and external knowledge resources required.

Stage 3 - *knowledge networking* - develop knowledge transfer and sharing through internal and external supplier communities.

Stage 4 - *knowledge incentives* - improve supplier alignment with organisational goals. Review internal incentives and rewards. Adjust relationships with suppliers to improve knowledge flows.

Stages 5 and 6 - *knowledge enhancement* and *knowledge enterprise* - organisational structure, culture and behaviour should have become well aligned with knowledge goals so progressive refinement and extension of strategies should now be ongoing.

(Adapted from Burton-Jones, 2003:153)

Acknowledging the role that knowledge plays in the economy is not a recent idea. The OECD paper *The Knowledge-Based Economy*, (OECD, 1996b) reognises Adam Smith's references to 'men of speculation', Friederich List's emphasis on 'the infrastructure and institutions which contribute to . . . . the creation and distribution of knowledge' and Schumpeter's 'innovation as a major force of economic dynamics'. Knowledge workers have always been needed but the growth in demand and necessity has multiplied.

Knowledge then needs to be defined and its diverse meanings considered in attempts to define or understand the knowledge economy. We have seen that it can take the easily recognisable form of professional or academic knowledge or the less often recognised form of lay knowledge, the sphere in which everyday knowledge and expertise are put to use. Writing on

ideologies of the knowledge society, Delanty notes the following ways of outlining knowledge:

> Knowledge can be equated with science or academic knowledge or can be seen as a culture or praxis. There is also a sense of knowledge as self-knowledge, that is, knowledge as *Bildung,* or self-cultivation. Knowledge, too, can take the elevated form of wisdom, in contrast to either *doxa,* the world of opinion, or *logos,* the world of science. (Delanty, 2002: 71)

7.1.2 Knowledge Economy or Knowledge Society?

Knowledge economy refers to economics that depend on knowledge, information and education as commodities. Knowledge society points to the 'concepts and rights of knowledge workers as citizens in the new economy' (Peters, 2002:13), where economic means are used to support social ends. Peters prefers the term 'knowledge cultures' to locate a context within which to establish both knowledge economy and knowledge society. A term which recognises the importance of cultural preconditions such as 'trust, reciprocal rights and responsibilities between different knowledge partners, institutional regimes and strategies, and the whole sociological baggage that comes with understanding institutions.' (ibid.). Knowledge societies will be formed and evolve as knowledge economies grow into knowledge-intensive communities where professional experts, ordinary users of information and uninitiated students come together through common interest in particular subjects (David & Foray, 2002:45). Ideologies of the knowledge society are traced by Delanty (2002) from the period of The Enlightenment, through Industrial Society and Professional Society, to what is now often referred to as The Information Society or Post-Industrial Society, showing that the nature of the knowledge society has developed and adapted under the influence of economic, political and social changes. Advances in communication and information technology drive the new kind of knowledge society that can be identified at the turn of the millennium. It is therefore more globally connected and potentially more inclusive, since the currency of knowledge is more widely accessible. Emphases on the generation and reproduction of knowledge are impacting on more than striving for economic success and securing competitive advantage. They are shaping policy and politics, making different demands on education and

reconnecting society in altered formations so that the impact is encompassed within the

context of social change. Delanty (2002:73) claims that, since knowledge has become so central to life in contemporary society, we can consider that we are indeed living in a knowledge society, but education policy is more often shaped with the economic ends of the knowledge economy in mind rather than the social ends of the knowledge society that may have within them a subset of economic ends.

7.1.3 Systems of Innovation

> One of the hallmarks of the knowledge-based economy is the recognition that the **diffusion of knowledge** is just as significant as its creation, leading to increased attention to *"knowledge distribution networks"* and *"national systems of innovation"*. (OECD, 1996:24)

The economies of advanced- and post-industrial countries are increasingly dependent upon knowledge as a crucial resource for securing competitive advantage, on-going growth and prosperity. Academics, policy makers and business managers thus require to investigate the ways in which knowledge systems operate and the role of knowledge in innovation and economic activity (Howells & Roberts, 2000:17). System innovation was predicted by Masuda (1990) to be the most far-reaching effect of the information revolution in post-industrial society (see Figure 7, Ch. 5, p114). The 'systems of innovation' approach has developed as a useful setting for analysing the processes of innovation and since such analysis usually takes place on a national basis, in order to secure a national benefit, the activities are often labelled National Systems of Innovation. The systems consist of networks of public and private institutions that fund and perform research and development, translate the results of that research and development into commercially viable innovations and bring about their dissemination. The development of science and technology-based knowledge is particularly important for transferring and disseminating knowledge into the economy. Production, marketing and finance are sub-systems in which learning takes place (Makar, 2001:4). According

to Patel and Pavitt (1994), national systems of innovation's purposes are twofold:

> The first is to define and describe the nature and determinants of the explicit, though tangible, investments made by countries and companies in learning activities that promote and manage technical change and secondly, to measure and explain the important differences amongst countries in the levels and patterns of these investments. (Patel & Pavitt, 1994:78)

There are similarities between systems of innovation and entrepreneurship as both require the identification and exploitation of opportunities.

In his book *National Systems of Innovation*, Lundvall (1992) built his point of view on two hypotheses, firstly that "the most fundamental resource in the modern economy is knowledge, and, accordingly, that the most important process is learning" and secondly that learning "is a social process which cannot be understood without taking into consideration its institutional and social context" (Lundvall, 1992:1)

Comparisons between systems in different countries are made due to the differences between various nations in the ways in which they go about creating and adopting innovations and in the skills and capabilities available to them for bringing about technological change. The role of globalisation can present a challenge to national systems as international and multinational companies pursue their corporate agendas and assert a broader influence on innovation, often overruling national interests.

In Scotland, The Scottish Executive has produced a publication to review the background and impact of systems of innovation and to explore how Scotland can perform using its own universities and industry as the bases for economic growth through innovation. (Scottish Executive, 2001)

7.2 Education and the Knowledge Economy

Nations are investigating ways of increasing and supporting the development of knowledge based innovation as matters of priority and education is being looked to as a means of increasing knowledge capital and thereby the competitive advantage of business.

> . . . the shift to a knowledge economy involves a fundamental rethinking of the traditional relationships between education, learning and work, focussing on the need for a new coalition between education and industry (Peters and Humes, 2003:5)

Peters and Humes (2003), in their editorial in the first edition of the Journal *Policy Futures in Education* consider that the new challenges for education arise from the shifting emphases on knowledge as an economic commodity.

> . . . education is reconfigured as a massively undervalued form of knowledge capital that will determine the future of work, the organisation of knowledge institutions and the shape of society for years to come. (Peters and Humes, 2003:5)

A high-performance model is the expectation of many organisations where all workers, not just the managers, can be expected to share broad understanding of what is being produced and contribute to resolving issues for maintaining output. Bills (2004:110) believes that companies employing highly educated workers and investing in developing the human capital of their workforces can reap benefits in more successful productivity and competitive performance and status for their firms. They can both 'buy' and 'make' skilled workforces. We can expect then that employers will increasingly be more interested in the thinking and general intellectual skills of school leavers either instead of, or along with, manual and technical skills which are themselves shifting in nature in response to new technologies. There is a growing labour market preference for workers with general ability to handle knowledge which, along with a lessening of demand for lower-skilled workers, could exclude a large number of potential workers from normal wage work. The implications for education are large in that they firstly require that educators and education policy makers be fully aware of these changing demands of work and secondly that they are able to develop programmes of

study that will provide realistic contexts for school students' useful learning. These cannot happen without communication between educators and the managers of business and industry.

The OECD in particular emphasises the development of a 'learning economy' in which workers acquire, and continuously adapt, a range of skills and nations invest in knowledge networks and systems of innovation: the model of innovation described above and consisting of knowledge flows and the development of science and technology through industry/government/ academic relationships. This scenario echoes the 1976 Ruskin College speech of the then Prime Minister James Callaghan which instigated the Great Debate about relationships between industry and education that Callaghan saw as crucial for the nation's economy, without of course the sophisticated information and communications technology now available.

Innovation is an increasingly dominant factor in knowledge production and the development of enquiring and creative approaches to all activities is a priority for educators. Innovation can take place remotely from outside the sites of production through research and development but can also occur during the production process through active and hands on testing and application of ideas and quality improving strategies. Creativity therefore, as supported and fostered in schools, is an invaluable asset in preparation for all kinds of work. Underpinning all of this is the fact that if teachers and policy makers do not themselves understand the shifts of meaning and practice that are inherent in the knowledge economy, they have no way of being able to adequately prepare their pupils to participate, a point that will be further developed in Chapter 10.

Research and education are the 'twin-engines' of knowledge and school education is integral to nations in the race to build up successful knowledge economies that have the hallmarks of dynamic innovation, creativity and international competitiveness (Skilbeck, 2006:90). But what can schools do to participate in these changes? Many aspects of contemporary

education have their roots in nineteenth century practices and ideologies, but according to Valerie Bayliss (2001:15), these will be swept aside by the requirements of the knowledge economy. There is a variety of consequences for schools arising out of the transition to the knowledge economy which will make demands on the curriculum over and above the need for literacy and numeracy as core skills (Hargreaves, 2000). Michael Peters lists the new forms of knowledge that Hargreaves envisages as follows:

- meta-cognitive abilities and skills - thinking about how to think and learning how to learn
- the ability to integrate formal and informal learning, declarative knowledge (or knowing *that*) and procedural knowledge (*know-how*)
- the ability to access, select and evaluate knowledge in an information soaked world
- the ability to develop and apply several forms of intelligence as suggested by Howard Gardiner and others
- the ability to work and learn effectively in teams
- the ability to create, transpose and transfer knowledge
- the ability to cope with ambiguous situations, unpredictable problems and unforeseeable circumstances
- the ability to cope with multiple careers - learning how to 're-design' oneself, locate oneself in a job market, choose and fashion the relevant education and training
  (Peters, 2000:3)

It is becoming necessary to alter the approaches of educational systems to ensure that there will be a wide base of knowledge workers who can understand and operate within the spectrum of abilities listed above. Indeed if nations fail to rise to the economic and educational challenges of the knowledge economy and to make adjustments in their education systems, the resulting problems of social exclusion for those not adequately prepared will present a drain on their economies. As Thomas Riley (2003) states, ". . education is a key, in order to ensure the skills for the knowledge economy exist in abundance." It is then imperative for schools to engage with the knowledge economy to support young people in developing the creativity and ingenuity that they will require in their working lives. To do this schools must become integral to the knowledge society, that wider context in which the stresses and strains of maintaining the knowledge economy can be supported by encouraging community and identity in a world that exhibits increasing social instability (Hargreaves, 2003:xvi).

Hargreaves in fact prefers the phrase 'learning society' to 'knowledge society' (ibid: xviii). David and Foray (2003) believe that the "knowledge economy's growth into the knowledge society hinges on the proliferation of knowledge-intensive communities" (p45) and schools can be a catalyst for this shift if they strive to promote students' learning that is open to knowledge production and sophisticated uses of information technologies. School systems in many countries have become so fixed on raising attainment and demanding accountability that it is made difficult for teachers to deal with a wider picture of community or the common good.

Many countries, including the UK, are striving to make general education more accessible to everyone and, particularly in the UK, to make tertiary education the aspiration of bigger proportions of the population with the related pressures that this puts on schools to assist young people in acquiring entry qualifications for college or university. This raises issues about the suitability of the type of education on offer and of the advisability of producing larger numbers of credentialised individuals. Alison Wolf (2002) argues that educating substantial numbers of young people to degree level does not necessarily mean that what they have learned, or have become skilled in, will correlate to what is needed in the developing economy. Similarly, Christopher Winch (2003) suggests that having more people educated to a slightly lower standard than is currently the case, in for example the UK, may be the way to deal with skills gaps that are emerging. The question of where in the system to locate specifically vocational education is relevant here. Robert Reich (1991) advocated a new set of principles - 'system thinking' - when looking to modernise curricula. These principles are based on the idea that being able to apply knowledge is just as important as the acquisition of knowledge. But Reich also cautioned that, even in a more knowledge-based economy, much of the work required would be in 'routine production' and in 'personal services', thus highlighting the need for flexibility for students in moving between academic and vocational pathways.

Christopher Winch (2003:51) highlights the important relationship among information, knowledge and learning, stressing that information itself is not very useful but requires institutions and skill bases that can assist in the transformation of information into knowledge. The distinctions between knowledge and information have been described above and the need for knowledge to be acquired and applied as cognitive ability rather than merely the amassing of information is explained. This is important for considerations of the knowledge economy where knowledge workers have to be able to interpret information, act upon it and apply it in work-based or economic settings to develop competitive advantage. It is here that education has a huge role to play in preparing and supporting learners. In learning how to use information there is a process of training required to enable the building up of strategies for accessing and applying information. There are skills to be learned that should be acquired through 'listening, watching and emulating rather than through direct instruction' (Winch, 2003:51). Pedagogy thus has to consist of modelling practice in teaching the handling and interpretation of information. Knowledge requires a different set of skills that again have to be taught through modelling and practice but which have to enable learners to either develop new knowledge from given or gathered information or to apply received knowledge to new situations.

David Guile (2003:98) explored ways in which educational policy could be reformulated to develop transformative rather than informative relationships with the world. He suggests the following: First, shift the focus from the orthodox knowledge traditionally included in curricula to a social practice location for learning and to resituate forms of subject knowledge in the fields where they originated and from where they have over time become dislocated. Second, rethink and reprioritise the relationships between educational institutions and communities of practice, for example, by finding more meaningful ways of promoting work experience that enables students to gain better understanding of the links between formal education and workplace cultures and practices. Third, as well as work experience, provide opportunities to learn across activities and communities by using information and communication technology as a cultural tool in assisting students to mediate their

relationships with the world. Fourth, assist learners to participate from their own knowledge bases across communities of practice so that their contributions are complementary to and not excluded from dialogues. Fifth, students need opportunities to come to terms with the traditions of social practice, but beyond that they should realise the possibilities of social practice so that they can prepare, through participation, for working and living in a knowledge society.

This social practice conception of learning suggested by Guile involves the following pedagogic implications proposed by Griffiths and Guile:

> . . . . it will involve finding ways to support students to:
> - understand and use the potential of subjects as conceptual tools for seeing the relationship between their workplace experience and their programmes of study as part of a whole;
> - develop an intellectual basis for criticising existing social practices and taking responsibility for working with others to conceive, and implement where possible, alternatives;
> - develop the capability of resituating existing knowledge and skill in new contexts as well as being able to contribute to the development of new knowledge, new social practices and new intellectual debates;
> - become confident about crossing organisational boundaries or the boundaries between different, and often distributed, 'communities of practice';
> - connect their knowledge to the knowledge of other specialists, whether in educational institutions, workplaces or the wider community.
>
> (Griffiths and Guile, 1999, quoted in Guile, 2003:101)

Within the knowledge society and the knowledge economy it is the sort of learning that has been undertaken that determines individuals' social status, and so education and academics have taken over the role and influence of family and parents' work status as the 'premier custodians of social status' (Fuller, 2003:111). These discussions of the impact of the knowledge economy on education and school education in particular, have all been focussed on the economic and human capital related purposes of education but it is not being suggested here that these should be the only aims of school education. They should however be a major concern of policy makers and teachers alike if school curricula are to avoid becoming obsolete

and a disservice to young people preparing for their future roles in the knowledge society.

7.2.1 'Targeting Excellence' in Scotland

One year on from the appearance of the UK Government's White Paper entitled *Our Competitive Future* (DTI, 1998a), Scotland's devolved Government announced its own strategy for futures thinking about improving economic competitive advantage entitled *Scotland: Towards the Knowledge Economy* (Scottish Office, 1999b). The education policy community in Scotland had been paying attention to shifts towards the knowledge economy and in the same year The Scottish Office produced the White Paper relating to school education entitled *Targeting Excellence: Modernising Scotland's schools.* (Scottish Office, 1999a). The way in which the policy writers saw the imperatives presented by the knowledge economy can be seen in the following paragraph from the document:

> The knowledge economy will pose challenges and opportunities. Knowledge and know-how are taking over from buildings and machinery as the most valuable assets of business. The speed at which information can cross the globe, the sophistication of modern products and services, and the sophistication of the modern consumer all point to increasing globalisation of the economy, and to increasing customisation of goods and services to meet peoples' individual needs. Innovation, fresh thinking, the acquisition and application of knowledge, and high levels of customer awareness are likely to be among the critical factors in achievement in the future. Competitive advantage will come from the application of intellect and knowledge to business problems. The skills Scotland will need to be successful can and should be fostered and grown in schools. (Scottish Office, 1999a)

There were a number of initiatives underway in Scottish schools when the above document was released, which were intended to support development in technological awareness, business/education links and enterprise awareness. Targeting Excellence contained specific advice and aspirations for education but it is interesting that the language used is very business based which is not surprising when it is considered that the education White Paper formed part of the Scottish Executive's overall strategy. The strategy looked to business and higher education to support the task of modernising the Scottish economy and to "create products and processes that will give us sustained competitive advantage" (Macdonald,

1999). Schools were urged to participate in a drive for excellence that could be built on established practice but complacency was warned against and a desire was expressed to remain competitive in international comparisons. Social inclusion was highlighted as a fundamental objective of the Government but the overall emphasis is clearly on education for work and enterprise with inclusive participation within these areas given priority.

> Education for Work and Enterprise must be central to the life of each of Scotland's schools. The Government is establishing a framework in which schools can deliver Education for work and enterprise effectively. (Scottish Executive, 1999a)

It is significant that this educational White Paper and series of initiatives appear as part of a Government led national strategy conceived of to improve Scotland's standing in economic terms. Targeting excellence in education is conceptualised within the document as a main plank of Government strategy and the economic purposes of the learning proposed are positioned as crucial. As in most educational initiatives in history, the educational imperatives arise out of political, economic and social developments that demand change. In this case it is an international awareness that we live in a knowledge-driven economy and a compunction to fit ourselves, and our young people, for operating in this altering environment. It seems somewhat ironic that education, whose main domains encompass the acquisition of knowledge and skills, is the follower and not the leader in this particular initiative. Michael Peters asks the question:

> To what extent is the knowledge economy educational policy template compatible with wider educational goals and visions that aim to preserve the distinctiveness of Scotland's system of education and its guiding ethos? (Peters, 2003: 1042)

Since the White Paper, however, there have been several changes made in Scottish education that, while still supporting enterprise and economic aims, have reduced the constraints of targets and testing and given greater autonomy to teachers in developing the human capital of the nation and more recent curriculum initiatives take a more holistic view of the processes of teaching and learning (SEED et al, 2004). There can be little doubt, however, that the

knowledge economy is generating new issues about the ways in which we organise school education to provide useful learning and that the Scottish Executive of the time and its Education Department felt compelled to attempt to address them.

This exploration of the impact of the knowledge economy on business and education highlights the importance of knowledge acquisition and management as major issues for the work-related purposes of education. Altered understandings of the importance of knowledge and of the ways in which it is changing the nature of work point to the need for corresponding shifts in conceptions of education and its role in work preparation. We see again major implications for teachers, teacher educators and policy makers that require attention and find some responses for questions 3, 6, 7 and 8 that were posed in Chapter 1.

Chapter 8 - Enterprise Culture and Enterprise Education in Scottish Schools

Preparation for understanding of work and the economy in primary and early secondary school is part of preparation for social and cultural literacy. Later in secondary school it can be more specifically tied to preparing for particular occupations or roles in society through vocational education or education and business links initiatives, but in the pre-vocational phases it is often referred to as enterprise education. This chapter seeks a better understanding of what is meant by enterprise and how it can be encouraged in young people. It tracks the development of a politically redefined notion of enterprise into education and of attempts to bring neo-liberal approaches to preparation for work into schools through the promotion of enterprise education. It is also the area of interest that triggered the early direction of reading and thinking for this thesis and so with the benefit of the research prompted by the previous chapters I have been able to proceed to investigating possible causes of the tensions that I have been aware of in recent years among school colleagues in their dealings with enterprise education.

8.1 Derivations and the Promotion of a Culture

The terms 'enterprise and 'enterprise culture' are often used in Britain to mean the dominant policies and programmes of the Thatcher Government. Paul Morris (1991) traces the evolution of the term enterprise and its subsequent broadening to enterprise culture from 1974. He allies this development with the origins of the Centre for Policy Studies (CPS) set up by Keith Joseph in 1974 to study free market economies. Its foundational document states its aim to foster the establishment of a 'culture for enterprise'.

> Enterprise was understood - in the publications of the CPS from its inception until around 1985 - largely in terms of commercial and industrial initiative and advocacy of the extension of the market model to new areas. (Morris, 1991)

Early uses of the word enterprise by Lord Young of Graffam between 1985 and 1988 increase what Norman Fairclough (1991) refers to as the 'ambivalence potential' of enterprise, as its

meaning is manipulated by the context in which it is used. In this way, Fairclough shows that the Young speeches' ambivalent use of the word enterprise allowed it to derive sense from the implications of the context,

> . . . notably in contributing to the revaluation of a somewhat discredited private business sector by associating private enterprise with culturally valued qualities of 'enterprisingness' (Fairclough, 1991)

The definitions for enterprise used in Young's speeches range from qualities that are specific to business activity through to qualities that relate to personal effectiveness and engagement in society. The term 'enterprise culture' arises in the speeches and again Fairclough, applying the techniques of discourse analysis, notes the ambiguity caused by putting these two elements together in one phrase. In fact he claims that most of the times when Lord Young used the word enterprise it was semantically ambivalent in its context. In many instances the word is used to imply entrepreneurship with qualities highlighted such as 'innovator, 'promoter', risk taker', 'desire to create', 'willingness to take responsibility', so that the emphasis placed on enterprise is the business sense. In later speeches the sense is more overtly related to enterprise as a personal quality. None of this is stated, but subtly insinuated into the speeches, thus building an understanding that widens the openings for use of the word enterprise in a variety of contexts. Thus the word was semantically engineered so that it retained but developed its business connection and meanwhile was given enhanced acceptability by emphasising its reference to general personal qualities. This was very useful in a political sense for a government that was intent in promoting a free market economy. Fairclough (1991) clearly illustrates the syntactical juxtapositioning and its impact. Enterprise discourse may have originated in political speeches directed at business but it was very quickly taken up by the media, by education sectors and by training agencies for other services, e.g. industry and health.

This evidence seems to suggest that enterprise culture and initiatives derive entirely from the right wing policies of the conservative government of the 80s but there is evidence that similar

moves were taking place in other countries. Crawshaw (1991) notes that a similar or even more forceful imagery of an enterprise culture grew up in France during a period of socialist government in the early eighties. He reflects that the differences in the enterprise cultures of Britain and France " . . . lie partly in the rhetoric that has been used to promote them, and partly in more deep-seated economic and cultural differences" (Crawshaw, 1991:110). There are examples of the development of enterprise cultures in economies that have been changing rapidly due to major shifts in their political organisation, such as in eastern European countries that have re-emerged from Soviet control. The contexts in these examples are different to Britain and the enterprise cultures have developed in ways that are specific to national conditions. Abercrombie (1991) argues that political calls for people to be more enterprising and creative are not due to any original idea but rather a response to a phenomenon that is happening in society anyway. With the evolving enterprise culture in the nineteen eighties and shifting market contexts, both nationally and internationally, alterations in the context of work accelerated.

> Firms radically restructured to survive, they dramatically altered the labour process and the form in which work would be available. 'Flexible', part-time labour grew at the expense of more stable, full time employment. (Cross, 1991:2)

Whatever the repositioning of the word enterprise by the Conservative Governments of the eighties and early nineties, there does seem to have been a shift in the culture of the UK to accepting that enterprise can relate to qualities of personal creativity, advancement and fulfilment. Indeed it has become so much part of the political and sociological landscape that it crops up regularly in political speeches. For example, the former Chancellor of the Exchequer, the Rt. Hon Gordon Brown MP, referred to enterprise and enterprise culture on many occasions. Addressing the Confederation of British Industry (CBI) at their National Conference, in the early days of New Labour, Mr Brown announced the Government's creation of institutes of enterprise and went on to make some interesting statements of intent designed for a 'modern dynamic labour market' such as:

. . . . the encouragement of innovation and the encouragement of an enterprise culture . .

People say that in the eighties Mrs Thatcher created an enterprising society, but we must always be looking for new ways to promote enterprise and open enterprise up to all.

I want Britain to be, in every area, a creative, innovative and enterprising economy.

. . . . this Government means enterprise and the rewards of enterprise are open to all. (Brown, 1999)

Similarly, into the second, and now third, term of New Labour government, the Chancellor was continuing to extol the virtues of enterprise and the intention of the Government to promote it as this section of a speech to the 2003 Labour Party Conference illustrates:

I ask you to affirm with me that a future fair for all has also to be a future where we open up enterprise to all, breaking down old barriers so that instead of enterprise being the preserve of the old privileged elite, more and more people from all backgrounds can work their way up, start a business – Labour the party of opportunity supporting small business creation, Labour the party of small business and enterprise. (Brown, 2003)

There are striking similarities in the discourses of enterprise used by the Conservatives of the previous government and by New Labour in extending the characteristics of enterprise to broader individual and community pursuits. Conservative policy led to an increase in individualism with a lot of reference to characteristics such as self-motivation and self-reliance in the creation of the 'enterprising self", to build in individuals an ability to judge right actions for themselves. Through this model of self-determination the Conservatives hoped to encourage a kind of social responsibility, 'social Thatcherism', where individual freedom would encompass duty to family, neighbours and nation. (Heelas, 1991) Questions of attitudes and values for individuals and society were, however, being asked, not least by representatives of religious organisations. Several aspects of wealth creation and enterprise culture are explored by Peter Sedgwick (1992) from a Christian theological perspective, highlighting through his research Christian attitudes to business, work and the effects of enterprise on the gap between rich and poor. New Labour approaches to enterprise, however,

while not attempting to revert to pre-Thatcher era cultures of dependence, claim that it is possible to reconcile the themes of enterprise and social justice.

> . . . . success in enterprise depends upon a more just society.
> (Fairclough, 2000)

There is arguably a need for those involved in education policy and practice to take into account the juxtaposition between the fact that 'enterprise culture' was a central theme of the Thatcher years and that Third Way politics sees enterprise and entrepreneurship, when coupled with education, as central to the development of social capital. (Giddens, 2000b:73) New Labour is maintaining the momentum of neo-liberal policies but emphasising community for the society that neo-liberalism worked to replace with individualism, and replacing welfare with social capital, making individuals responsible for themselves, each other and the common good.

> These new arrangements provide an increasingly accepted social recipe for individualising the social by substituting notions of civil society, social capital or community for state. (Peters, 2001:62)

It is argued, for example, by Norman Fairclough (2000) that referring to business or industry as 'enterprise' seeks to attach meanings of 'being enterprising' to "a process that also has a less rosy aspect" (p 34).

It is education that is expected to instigate the shifts in attitude that will bring about the cultural reconstruction needed to maintain a market economy and to encourage enterprising attitudes in both school education and life-long learning in order to support a shift to a culture of enterprise. Education policy in the UK is being reshaped by New Labour to reflect new attitudes to public service.

> It is not a truism in social science to say that we have passed from a metaphysics of the self as producer, which characterised the era of Left politics and the Welfare State, to a metaphysics of self as consumer which now characterises politics on the Right, the neo-liberal market economy and the provision of public services. (Peters, 2003)

The impact of education on both the enterprising attributes of individuals and on the enterprise culture of society has been significant, but equally the shift in society towards market driven imperatives has placed demands on education policy making and on resulting curriculum developments. Education took up the challenge of the Great Debate instigated by the late Lord Callaghan when, as Prime Minister, in 1976, he made his now famous Ruskin College address. (Callaghan, 1976) He expressed concern that students in traditional academic disciplines were not considering careers in industry, to the detriment of the relationship between education and industry and ultimately to the nation's economy. Callaghan challenged education and industry to respond positively in affecting the education of young people. In the ensuing Conservative era of policy, the curriculum in England and Wales began to build in Education/Industry Links and Enterprise activities through various means such as the Schools Curriculum Industry Partnership (SCIP) and The Technical and Vocational Initiative (TVEI) and to enlist the help of the Confederation of British Industry (CBI). In Scotland, where the influence of New Right agendas was a little slower to emerge and where curriculum developers took a less forceful stance, enterprise education developed in a different way. Although not a discrete subject in the Scottish Curriculum, enterprise activities have been gaining in popularity, and documentation has been provided in recent years (SCCC, 1995, 1999) (SEED, 2000, 2002) which has both supported its development and reflected the changing political attitudes to its inclusion in the Scottish Curriculum.

An interesting exploration of some issues surrounding enterprise education and its place in education can be found in two articles, which appeared in the *Journal of Philosophy of Education* in 1992. The first is by David Bridges who wrote on the relationship of enterprise education to established notions of a liberal education (Bridges, 1992). Bridges identified three main dimensions to enterprise education, namely 'developing enterprising individuals', the 'development of enterprising organisations' and developing 'a wider understanding of and appreciation of enterprise as a component of social and economic life'. Based upon a premise that a liberal education is meant to provide the recipient with the wherewithal to make life choices, Bridges concludes that enterprise education has a part to play in this. He does not

see enterprise education as an alternative approach but rather an 'essential component of a liberal education'. He suggests that it offers 'a new dimension to a general education' but that it 'does not in itself constitute a comprehensive education programme.' (p 95):

> Even if we agree that an understanding of enterprise is desirable, it could hardly be all that we would want either school pupils or student teachers to understand. . . . . . it has to be linked with a broader philosophy of education, be that a philosophy of liberal education or otherwise." (Bridges, 1992:95)

Charles Bailey (1992) expresses some reservations about Bridges' contention. He questions Bridges' view of enterprise education as a means of supplying a skills element to a liberal education. He agrees that we would indeed want pupils to be enterprising in their approaches to elements of a liberal education and in pursuing their quest for knowledge and understanding but questions whether this would be appropriate for all aspects of learning.

> Most of us seem to display considerable enterprise in some areas of our lives and remarkably little in others. On this view the educational problem would not be getting pupils to be enterprising, but rather what it is that we would want them to be enterprising about. (Bailey, 1992:101)

Bailey claims that encouraging enterprise education is really to do with developing the dispositions necessary for running 'enterprises' for profit. In this sense being enterprising becomes identified with enterprise as understood in business organisations. These aspects should not be ignored in a liberal education but the extent of their worth should be more critically considered.

8.2 Education for Enterprise

8.2.1 Enterprising Education?

Many schools in Scotland include enterprise education in their curricula. It is not a discrete curriculum area but rather is located in various ways within established arrangements in the primary and secondary sectors and even in pre-five establishments. It is at times referred to as education for work; indeed documentation from 1995 and 1999 used this term instead of enterprise, as we will see. Enterprise education has been evolving gradually with the changing political and curriculum management influences on Scottish schools in the past twenty or so

years. It is pursued in a belief that one of the main purposes of education is to prepare school pupils for their future role in society and that this in most cases is expected to involve being economically active through employment and financial autonomy. Whether education for work in the Scottish approach to enterprise education is explicitly promoted through curriculum objectives or is to be found within wider curricula, those who are to devise programmes of study in the area should have academic and theoretical understanding of the subject and its related issues. Teachers as professional educators should have intellectual and ideological awareness of the purposes of what they teach and this is particularly so when considering politically sensitive areas such as enterprise education or education for work. Sufficient background knowledge of key aspects of any subject is necessary when devising appropriate contexts for learning and background knowledge of concepts and issues in, and relating to, education for work is crucial to providing school pupils with relevance and realism. Armed with this kind of background understanding, teachers would be better placed to make decisions about content and delivery from a critical perspective and hopefully be able to encourage enquiring approaches in their pupils. This is arguably what enterprising education, indeed all education, is about, wherever it is located within curricula. Many of the issues surrounding enterprise education and education for work are contested concepts and young people deserve the opportunity, prompted and inspired by their teachers, to engage in debates about the impact of these issues on their own lives.

There are no prescribed curriculum directives for enterprise education or education for work in Scotland, in line with general curriculum guidance for primary and early secondary education. Policy documents have, however, emerged in the last decade which aim to support and consolidate good practice and provide frameworks for developing programmes throughout the school curriculum (SCCC, 1995, 1999) (SEED, 2002). These aspects are also covered in the self-evaluation of good practice which is required of Scottish schools (SCCC & SOEID, 1997), so there is a general expectation that schools will include enterprise and education for work in the curriculum. Indeed the inspectorate comment on the level and quality of involvement when reporting on schools. (SEED, 2000)

8.2.2 **Teachers' and Student Teachers' Understanding of Enterprise**

Primary teachers' perceptions and understandings of enterprise in education were the subject of research that I conducted for an earlier degree thesis (Fagan, 1998). The teachers who participated in this survey offered definitions of enterprise education. The words and phrases used in the definitions were noted and divided into definitions tied to business/industry specific approaches (28.4%) and those taking a broad view of general skill development (71.6%). The picture emerging was that just under a third of respondents defined enterprise education in terms of specific business/education links. The strongest perception arising from these teachers' definitions is of enterprise education as a means of developing and using personal, interpersonal and general life-skills. This survey was small in scope but was representative of the primary schools undertaking enterprise education in the two large local authorities that participated in the survey. The response rate was 44%. At the time the general approach to enterprise in the primary school was to offer topic work when groups of pupils would be involved in setting up a small business in the classroom. Most of these involved the manufacture of a product for selling. It emerged from the data however that the teachers involved in these enterprise projects had a higher regard for the personal and interpersonal qualities than for the business understandings that could derive. The respondents indicated that they had had little pre-service or in-service advice or training in enterprise education and most said that their involvement was due to having been asked by head teachers to undertake enterprise in the classroom. The resources available at the time were mainly designed to promote a business understanding approach to enterprise, particularly in the primary and lower secondary school which seems to have been at odds with the approach of many teachers at the time. The only documentation available was Education Industry Links in Scotland 5 - 18: A Framework for Action, produced by The Scottish Consultative Council on the Curriculum (SCCC, 1995). This document also promoted a neo-liberal approach to business understanding so it is interesting that a significantly larger proportion of the teachers in the study eschewed this approach for that of developing 'life skills'.

A more recent study, the Schools Enterprise Programme research project, undertaken at Strathclyde University (Brownlow et al, 2004), seems to indicate that not much has changed despite a much bigger uptake of enterprise education in schools and stronger exhortations from government and the business community to involve all school pupils. This study explored teachers', pupils' and policymakers' perceptions of enterprise education, following on the early use of the guidelines offered in Determined to Succeed (SEED, 2002), the most recent advice to teachers from the Scottish Executive. Pupils, teachers and parents were interviewed on a range of aspects of enterprise education. As in the 1998 study, this research project has also reported that schools rate highly the social and personal skills to be derived from enterprising activities and approaches to learning. The pupils' responses to what they thought enterprise might mean were 22% business, 20% having ideas and 11% working in teams. The majority of staff, however, regarded enterprise as manufacturing and selling type business and there was more emphasis on affective benefits in the primary school with secondary schools more likely to see enterprise as 'equipping pupils with skills for work" (Brownlow et al, 2004: 43). There seems, however, to be a difference of perception about the economic benefits and impact of enterprise education and both policy makers and school managers are vague about their respective definitions. In the intervening years, teachers and student teachers have certainly been offered more in the way of documentation and support. New documentation emerged in Scotland after the change of government in 1997 in the form of an update to the 1995 guidelines, namely Education for Work. Education Industry Links in Scotland: A National Framework (SCCC, 1999) followed by Determined to Succeed (SEED, 2002) which was produced when business partners contributed, both financially and with advice, to the promotion of enterprise in schools.

In April 2005, the Scottish Executive published the findings of a report commissioned to explore young people's perceptions of enterprise (Langford & Allen, 2005). This takes a similar approach to the last study (Brownlow et al, 2004) in trying to gauge young people's aspirations for their future work involvement and comes up with similar results on this question. For example, wanting a job with 'good money' is again prevalent and it is concluded

that young people are fairly positive about themselves and their prospects. The study differs in that rather than seeking definitions of enterprise the researchers listed characteristics that they used as indicators of enterprise and then sought these characteristics among the pupil respondents. There is no general or baseline definition of enterprise offered, so the researchers' starting point is not clear. Schools are characterised as 'enterprising' or 'less enterprising' without definition or explanation of how these designations are applied. The recommendations consist of suggested interventions through the Determined to Succeed initiative for supporting young people in the four identified attitudinal segments: Confidently optimistic; Potential Entrepreneurs; Shy and Intelligent; Drifters. Young people's perceptions of what enterprise may be about, or how it might have an impact on them personally, are not apparent in the end. It is noticeable that this survey commissioned from professional researchers (Langford & Allen, 2005), despite dealing with similar aspects, differs significantly in approach and outcomes to the survey carried out by educational academics (Brownlow et al, 2004). The researchers seem to have different starting points of reference on what enterprise means and how it affects young people's education. One is seeking definitions and the other is seeking evidence to support their own undisclosed definition which raises interesting questions about the relative positions of commissioning research from private organisations or from the academic community. Both sets of results, however, appear to have been influenced by school approaches that lean towards generic skills methods for what are referred to as enterprise activities in schools.

In the teaching part of my role in the Faculty of Education of Glasgow University I have access to student teachers on several programmes and have taken the opportunity of seeking their definitions of enterprise in connection to a wider research survey on Economic Literacy (Fagan, 2007). The findings were surprisingly different to those from teachers in the previously mentioned surveys (Langford & Allen, 2005; Brownlow et al, 2004) and closer to the views of school pupils in the 2004 study. Business related definitions accounted for 69% of responses with generic and life skill responses of 31%. These students mostly cited enterprise as relating to: business; creating new business; making money or profit; making and

selling products. The more general definitions to arise referred to: original ideas; creativity; imagination; innovation. This result is almost exactly the inverse of the findings of the 1998 study. These students surveyed are either young and coming to higher education directly from school or, if mature, have had other jobs before entering teacher education. So what is it that makes them more comfortable with a purely business interpretation of enterprise. It may be that the young students are growing up in a consumer age where neo-liberal and now New Labour approaches to the world of work are commonplace. The mature students may be transferring their earlier drive to earn to make a living and realise the importance of gearing up young people with skills that will adequately prepare them for a competitive environment.

The above studies indicate that teachers', pupils and student teachers' notions of what is meant by enterprise or what is involved in enterprise education are rather varied. Despite Scottish Executive led attempts to promote enterprise education in schools, there is currently no one approach or perception to provide consistency in, or even a modicum of agreement about, what is to be conveyed to school pupils. Nor are teachers encouraged or given opportunities to debate the sensitivities associated with enterprise education. Discussion is mostly about use of resources or examples of practice that is considered to have been successful in engaging school pupils in enterprise activities.

8.3 Enterprise Education: Policy Discourse in Scotland

8.3.1 From Neo-liberalism to New Labour

An examination of the evolving nature of policy documentation, using discourse analysis techniques, can illuminate the lack of coherence in supporting, informing or listening to teachers that has characterised the story of enterprise education in Scottish schools. Developing approaches to enterprise education on the part of policymakers can be discerned in documents and the changing policy emphases can clearly be seen to match the political contexts in which they were written. The Scottish Consultative Council on the Curriculum produced a document in 1995 entitled *Education Industry Links in Scotland 5-18. A Framework for Action*, with the stated intention of clarifying the position of

education/industry links in Scotland. Since most of the advice is related to suggested topics for classroom learning with some reference to making links with local business and industry, the title phrase 'Education Industry Links' is little more than a euphemism for enterprise

education, thereby avoiding reference to the sensitive area of enterprise. The document begins by recognising the "long Scottish tradition of success in links between industry and education". The rationale provides words of encouragement for a variety of interested parties under the headings: Young People, Employers and Employees, Education Staff, Parents and The Community. Particularly in the section referring to young people, the discourse reflects the neoliberal influences of the time, the late years of the Conservative New Right agenda. Education/Industry links are said to

> Improve understanding of work and the key importance of wealth creation in a highly competitive world (SCCC, 1995:2)

The policy context in Scotland had been substantially altered in the nineteen-eighties and early nineteen-nineties and by the time of the above named document was strongly market and consumer choice driven. Although the Education Minister at the time was Lord James Douglas-Hamilton, the agendas of his predecessor, Michael Forsyth, were still being pursued. Forsyth had established a series of reforms in Scottish Education (Humes, 1995) within recurring themes of 'consumer choice, accountability, standards, value for money.' The framework document goes on to offer straightforward and useful suggestions for practical activities and ways of utilising links with work places. There is no bibliography or suggested reading in the document to assist teachers in informing themselves of the implications of education/industry links or to support the document writers' claims for the purposes of the endeavour.

A new edition of this document was published in 1999 with the altered title *Education for Work. Education Industry Links in Scotland - A National Framework*. (SCCC, 1999) There is minimal but interesting change in the new document. The introduction of the new wording in the title shifting to the more explanatory expression 'education for work', but maintaining

the old as a subtitle, is representative of the shift within the document and establishes the phrase that was to be used in Scotland for enterprise type initiatives for several years. The listed benefits for partners and the suggested progression of learning activities is barely changed at all, other than a slight streamlining of the phraseology in a few instances, in a way which does not alter the basic intent or purposes of the writing.

The rationale shows little change under the same subheadings as the 1995 document but there is the introduction of a more extensive preamble on the nature and importance of education for work. In this section there is a different discourse in evidence. The writers clearly wished to broaden the view espoused. The terminology implies that a wider definition of work is in use and indicates a recognition that work may indeed mean different things to many people, including the young people who will make up workforces of the future in whatever form they ultimately take. An example of an interesting addition is: -

> Work, in the widest sense of the word, is integral to human life and takes a variety of forms. . . . . much of people's working life is also taken up with unpaid forms of work, most notably in the home and in a variety of voluntary activities. (SCCC, 1999:2)

There is also a general statement on the interest of the industrial and business community in contributing to and supporting 'the essential work of educating young people'. This does not refer specifically to work related education but to educating in a wider sense although this sentiment is not picked up on again and is so fleetingly expressed that it is unlikely to be dwelt upon by those seeking support from the document for work related education.

This document places more emphasis on coherence in co-ordination of activities than its predecessor and also refers to the performance indicators listed in *How Good is Our School at Education Industry Links: Self-evaluation Using Performance Indicators* (SCCC and SOEID, 1997) to promote evaluation of activities undertaken. The adaptations made in the 1999 framework arise within a new political context in Scotland; two years into a New Labour Government and in the year of devolution and re-establishment of a Scottish Parliament. The

bulk of the 1999 document is however identical to the 1995 document with these few mentioned additions. The 'softening' in tone of the introductions to the document is in stark contrast to the unchanged body of the paper. This is perhaps not too surprising for the time, with the fairly new New Labour Scottish Office making minimal changes to educational practice just prior to the setting up of a devolved parliament in the same year that would allow even greater divergence from Westminster education policy. There is no reference made to political, social or economic developments and indeed, other than what little can be gleaned from the discourse of the early part of the document, there is again no indication of the sources informing the voices of the writers. The series of documents entitled *How Good is Our School? - Self-evaluation using performance indicators* (SOEID, 1996) emerged as a series of performance indicators for self-evaluation activities in Scottish schools. It has been revised by the Scottish Executive Education Department (SEED) post-devolution and is now *How Good is Our School? - Self-evaluation using quality indicators* (SEED, 2004) providing schools with six point scales for evaluation in place of the four point scales of the earlier document. These self-evaluation indicators are being shared by teachers, Education Authorities, and Her Majesty's Inspectors of Schools in the interests of maintaining and raising standards and quality in a range of aspects of schools including education for work.

One year after the above framework (1999) was published, the new Scottish Executive Education Department of the devolved Scottish Executive, produced a paper entitled *Education for Work in Schools: A report by HM Inspectors of Schools* (SEED, 2000). The paper reviewed the status of implementation and practice of education for work activities in schools and the stated aims of the report were to: -

- Describe good practice in education for work
- Identify and evaluate key features of effective education for work programmes.
- Make recommendations to improve the quality of education for work across Scotland.

The work of the sample schools was evaluated using two of the documents mentioned above, *Education for Work: Education Industry Links. - A national Framework* (SCCC, 1999) and

How Good is Our School at Education Industry Links? Self-evaluation Using Performance Indicators (SCCC and SOEID, 1997).

Commenting on the HMI 2000 report, I have previously made and published some observations about the way in which the data were gathered and interpreted (Fagan, 2002). I noted that the schools selected for inspection were already performing impressively in many areas, including that of education for work, and there was little indication at the time of any wider movement in schools to make extensive use of the frameworks provided. There was no attempt to explore attitudes to issues relating to education for work and its place in the curriculum, or indeed to address larger questions about teachers' and policy makers' understandings of the meaning of work in our society and in the future. There was some recognition of the need to be aware of shifting patterns of work and labour markets, but no advice for teachers on becoming aware of current ideas or how to help young people to be suitably adaptable. In summary I suggested that documentation from policy makers should take several major contemporary issues into account and design frameworks accordingly. Suggestions for consideration were provided as follows: -

- Examination of the theoretical contexts of the changing nature of work in post-industrial societies. Look at the views of sociologists, economists, philosophers and contemporary management theorists in order to make informed choices about the contributions of school education to our future society. What is the future of work and how must we change our current understandings to allow for future relevance?

- To explore the changing patterns of work through empirical analysis of emerging conditions especially in the UK. How is the expansion of new technology affecting our traditional occupations and encouraging new ones? What is the extent of the shift from the role of industrial workers to that of knowledge workers?

- To look at wider patterns influencing the nature of work, particularly the effects of globalisation on the development of a knowledge economy. How do we develop local economies in relation to international factors beyond our UK economy?

- To look at work in relation to cultural issues and to self-definition. How do we deal with new classifications of work and activity? How do shifting patterns of age and gender of employees affect the working population? How do we support each

other to engage in useful and fulfilling activity? This implies links with current studies into the role of citizenship education.

- To consider questions of responsibility which would derive from developments leading towards a 'civil society' and the role of education in the process. Is it possible to share knowledge and work opportunities for the common good? How do we deal with knowledge management in order to promote a learning society? (Fagan, 2002)

These above aspects should be explored with student teachers and in continuing professional development activity with serving teachers to equip them with background understanding of the social, political and economic arguments for supporting education for work in schools.

8.3.2 A New Policy: A New Approach?

The most recent document relating to education and work to emerge from the Scottish Executive is entitled *Determined to Succeed: A review of enterprise in education* (SEED, 2002). It is rather different in style and presentation to previous documentation, which indicates a refreshing attempt to be innovative and prompts enquiry as to whether any futures thinking or horizon scanning may have been employed in its compilation. Following the input, both intellectual and financial, of a group of successful Scottish entrepreneurs a review of education for work and enterprise was established in September 2001 with the remit:

> . . . . to assess the effectiveness of Education for Work and Enterprise in schools, in preparing young people for the world of work and encouraging an enterprising culture in later life; and to examine the scope to improve Education for Work and Enterprise in fully supporting Scotland's priorities for education, and its economic success. (Scottish Executive, 2002)

The language used here is at least open to the promotion of an enterprise culture but is clearly aiming at later life and future national economic success. In fact the recommendations published in the resulting document make a clear case for what is referred to as 'enterprise in education', which seems to imply a wider scope for being enterprising. This change in terminology in the document, however, does not seem to have caused a more general shift

away from the phrase 'enterprise education' which has persisted in common use. The language in this document is significantly different to that of its predecessors in it's embracing of the idea of enterprise but more notable is its strong promotion of entrepreneurship in education. The first paragraph states boldly "The ultimate goal of Enterprise in Education must be the creation of successful businesses, jobs and prosperity." (SEED, 2002:6) indicating a prime focus for economic outcomes in young people's education. Enterprise in Education is then defined in terms that support this focus and make a small concession to general attitudes and skills as follows:

> We define Enterprise in Education broadly as the opportunity for young people to:
> - develop enterprising attitudes and skills through learning and teaching across the whole curriculum
> - experience and develop understanding of the world of work in all its diversity, including entrepreneurial activity and self-employment
> - participate fully in enterprise activities, including those which are explicitly entrepreneurial in nature, and in which success is the result of "hands-on" participation and
> - enjoy appropriately focussed career education
>
> (SEED, 2004:6)

There is recognition in the document that young people may take up different roles after school, namely as "employees, employers and entrepreneurs" which, despite its optimism that all will be involved in working roles, does concede that not everyone will be a leader in or provider of work. Where previous documents have not mentioned any intention to inspire young people to become entrepreneurs with a view to encouraging new business, this document clearly states this as an aim of enterprise in education. This is an interesting shift. Certainly the earlier policy documents were produced at a time when, although politicians and policy makers were keen to promote market approaches to education and enterprise, there was also awareness of a 'cultural unease' among parents and teachers (Humes, 1995:123). Policy writers had been careful to avoid the term enterprise education in earlier documents and there was never any reference to entrepreneurs or entrepreneurship to be found. Now, however, the terms are becoming more generally acceptable, especially since a small group of successful business people in Scotland have committed themselves to encouraging

entrepreneurial aspirations in young people (Williamson, 2001; Henderson, 2003). They have put substantial financial resources into projects and a good deal of their time and energies, and the involvement of these Scottish entrepreneurs is outlined in the document. The support of Dr Tom Hunter has been particularly significant. He has established the Hunter Centre for Entrepreneurship and continues to support the development of entrepreneurship in Scotland, in business and in education, both financially and ideologically. The document wisely recognises, however, that there can be other, equally enterprising, aims for young people besides entrepreneurship. The language used is much more inclusive in terms of realising that not every young person would have either the wherewithal or the inclination to become an entrepreneur. Rather there is now in the new document an ambition to bring about school contexts "where innovation, wealth creation and entrepreneurship are valued" (p6) along with other stated aims. *Determined to Succeed* aims to support schools, with the help of successful entrepreneurs and businesses, in producing future employees and employers as well as budding entrepreneurs. The goal, however, is set for 'enterprise in education' rather than for education generally and the ends of prosperity and wealth creation are 'justified' as being vital to the support of services such as health care and education arising from successful businesses. In reality, however, there are relatively few successful entrepreneurs per head of population in Scotland (Galloway, 2002) and only a small number of these are so far committed to being involved in Tom Hunter's scheme. Most Scottish entrepreneurs are creating wealth for themselves or for their organisations. Services such as education usually depend on benefiting indirectly from the economy as it responds to the results of entrepreneurs' impact on the market.

The change in terminology from Education for Work, not back to Enterprise Education, but to Enterprise in Education is significant. Definitions are offered for what Enterprise in Education is intended to mean. There is however a huge literature (du Gay, 2000; Sedgwick, 1992; Keat, 1991), not all of it in agreement, about what is meant by 'enterprise' or an 'enterprise culture' and there is no indication of whether this sort of theorising has been considered when the document looks at the links between enterprise and education. There is a widening of

emphasis from the narrower approach of the development of skills for work to that of skills for becoming an enterprising person. There is a strong emphasis on support from successful entrepreneurs and business partners in general. Indeed, I suggest that business should take more responsibility for supporting educational initiatives, but not just in the sense of Enterprise in Education but in the broader sense of education for learning, of knowledge, skills and dispositions, which is crucial for the future lives of young people in contemporary society.

There needs to be consideration and debate among teachers and policy makers about where Enterprise in Education sits within the purposes of schooling. Those with business interest in the community should participate in this debate to reflect on the idea that wider support for enterprising approaches to all learning would encompass the fostering of skills for future employees, employers and entrepreneurs. The document defines Enterprise in Education in these very terms, but still fails to recognise that the vast majority of our young people who manage to obtain paid employment, will find it in the service sector or in aspects of the fastest growing area, the knowledge economy. Indeed new interpretations of what is meant by enterprise are continually developing as in the notions of the 'enterprising self" and 'human capital'. (du Gay, 2000:89) This has direct relevance for the situation in Scotland in the present day, since the virtual disappearance of the traditional manufacturing industries and the rise of the service and knowledge sectors. Education policy, especially that which seeks to influence young people's economic prospects, should take account of the need to develop knowledge capital. (Peters, 2002)

The service and knowledge sectors need the kind of enterprising individuals who have the wherewithal to increase the account of social capital in Scotland. The type of support offered to education by business partners, however, tends to focus on the creation of businesses, often with a production driven ethos, rather than on the broad range of career options, which are necessary to keep the country functioning effectively. It is claimed that the low start-up rate of business in Scotland is the result of negative cultural attitudes to risk taking (Galloway

& levie, 2002).   However, the often-reported high failure rate of new businesses, particularly small businesses, in Scotland must be a considerable disincentive to potential risk takers. The Scottish Executive, now renamed Scottish Government, and Scottish Enterprise need to consider better confidence building to assist new business start-ups to greater success and thus counteract this detrimental factor and its impact on our 'negative cultural attitudes'.

8.3.3 Policy-Makers' Approaches to Enterprise in Education

Scottish education seems to be trying to do two things through its education for work initiatives. On the one hand it is attempting to promote enterprise in the sense of encouraging young people to be enterprising in their approaches to learning generally. On the other, it is trying to promote an enterprise or 'can-do' culture for the sake of the economy and in the national interest. Documents on Education for Work in Scotland promote both aspirations but do not acknowledge the problematic nature, or the contested credentials, of enterprise or enterprise culture. Indeed the perception of enterprise espoused in *Determined to Succeed* (SEED, 2002) clearly links the encouraging of enterprise to increasing the entrepreneurial aspirations and potential of young people. In this document there is a commonly found conflation of enterprise and entrepreneurship that serves to indicate further that there is a difference in interpretation inherent in enterprise education policy in Scotland.

The place of Enterprise Education in the Scottish Curriculum has recently been strengthened by its being firmly placed within the aspirations of the latest curriculum documentation to become available. The Scottish Executive has set out its plans in *A Curriculum for Excellence* (SEED, 2004) and enterprise education is hailed as a central aspect of its implementation, building on the initiatives in place to meet the recommendations of *Determined to Succeed.* The purposes of *A Curriculum for Excellence* are stated as follows:

> Our aspiration is to enable all children and young people to develop their capacities as successful learners, confident individuals, responsible citizens and effective contributors to society. (SEED, 2004)

A new document to present the above mentioned enterprise link in the new curriculum to

teachers, pupils and parents has been issued; *Excellence Through Enterprise. National Guidance: Enterprise in Education* (Scottish Executive, 2005). Refreshingly this document makes statements about 'enterprising learning', 'enterprising teaching approaches' and 'enterprising capabilities' and actually proceeds to offer some examples of how to recognise these phenomena in teachers' and pupils' activities. Couched in language that allows for a broad interpretation of enterprise and a wide range of attributes being described as enterprising, it could be argued that the policy makers' intentions are more clearly set out. However the intention to continue to support the implementation of *Determined to Succeed* implies that the government is still keen to promote what is in fact entrepreneurship education, although the terms used are more inclusive. Whether teachers will feel the need to alter their personal perspective on reading this latest advice is yet to be seen.

A Curriculum for Excellence locates enterprise with creativity, which seems logical, but when enterprise is not being taken to mean entrepreneurship education, but the other vague descriptions that are used, how does it differ to what we would look for in a broad and general education that requires the development of creative approaches in every aspect of school learning? The history of the provision of enterprise education in Scotland, whatever synonym has been used, illustrates, as in previous chapters, the ways in which education has reacted to shifting political, social and economic imperatives. It is only with the early stages of A Curriculum for Excellence that we can begin to see some more proactive planning for the development of enterprise education within the curriculum as a whole.

In exploring the background to the use of the term enterprise and the promotion of an enterprise culture along with tracing the development of enterprise education policy in Scotland the possible sites of tension between teachers and policy makers can be identified. My earlier research (Fagan, 1998) has indicated that teachers have at least some notion of a political reworking of the term enterprise for use in promoting New Right policies of individualism and free market neo-liberalism, as well as an awareness that work and society have changed and that education must in turn adapt in order to provide for and support the

development of appropriate skills. There also seems little doubt that personally enterprising dispositions are recognised as being invaluable to young people. Striving to reconcile these two positions may be responsible for teachers' uncertainty in how to deal with enterprise education. I suspect however that this dichotomy will not be an issue for newer, younger teachers who were born during the time of Conservative New Right government and for whom their adult years and teacher education studies have taken place in a political climate within which individualism is more generally accepted. This younger generation has been labelled in some literature as Thatcher's children (Pilcher & Wagg, 1996). Responses to my recent research on economic literacy and awareness among student teachers (Fagan 2007) indeed provide evidence that contemporary teacher education students hold views on economic matters that reflect the political and social circumstances of their upbringing. A further cause of tension may be found in the messages that can be taken from the current strong input into education by entrepreneurs. The emphasis being placed on entrepreneurial type enterprise (see Chapter 9) and the directing of considerable funds to this end, stresses an aspect of education that claims to have a role across the curriculum but in practice focuses on a narrow range of resources and teaching strategies and not on efforts to enrich the full gamut of knowledge, skills and dispositions that young people require of the curriculum as is evident in the approaches described above. This chapter has sought to address the first two questions posed in Chapter 1 by exploring the tensions that can arise in relation to enterprise education and whether they are present in all aspects of education for work. In so doing it has also contributed to the contextual and conceptual queries of questions 3, 6, 7 and 8 by exploring further the work-related purposes of education, how these may be changing to realign with new forms of work and the resulting pressure on policy makers and teachers educators to support every teacher in engaging with education for work whether through enterprise education or the curriculum in general.

Chapter 9 – Entrepreneurship Education and the Importance of Economic and Financial Literacy

9.1 Entrepreneurship Examined

> In common parlance, being an entrepreneur is associated with starting a business, but this is a very loose application of a term that has a rich history and a much more significant meaning (Dees, 2001)

The pursuit of enterprise, particularly in education, has often been conflated with attempts to encourage more entrepreneurial aspirations in young people's consideration of their future work roles and indeed to boost the number of entrepreneurs supporting the nation's economy. The encouragement of entrepreneurial activity and dispositions is a central aim of neoliberalism as David Hursh (2007: 115) observes with "neoliberalism perceives of and promotes the individual as an autonomous entrepreneur responsible for his or her self, progress and position." David Harvey (2005) also describes the link thus:

> Neoliberalism . . . proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterised by strong private property rights, free markets and free trade. (Harvey, 2005: 2)

This can be seen clearly in recent work-related educational documentation in Scotland where the need for more entrepreneurs, to increase the business start-up rate and thus improve economic conditions in the country, is cited as a reason for pursuing enterprise education at all levels in schools. (SEED, 2002). Charged with this task of pursuing this aspect of education for work, however, how do teachers perceive entrepreneurs, understand entrepreneurship or relate these to their teaching? At tertiary level there is now a wealth of opportunity to study entrepreneurship, particularly through Business Studies and Business Management qualifications and there are departments and chairs of entrepreneurship studies in many institutions. Some countries now include entrepreneurship studies as a subject in the school curriculum, particularly at secondary level and the term appears regularly in curriculum documentation as an aspiration for young people, as is currently the approach in Scotland. Successful entrepreneurs are currently seeking to support and encourage young people in

Scotland to become the next generation of entrepreneurs but policy makers should be aware of the ambiguous nature of entrepreneurship. There seems little doubt that the intentions of these philanthropic citizens is positive and arising from a genuine desire to improve the life-chances of Scottish young people in conjunction with a view to boosting the Nation's future economic performance. Politicians and policy makers, however, should not allow the prospect of financial support to cloud their judgement on ethical curriculum matters. It is a dangerous precedent to allow education policy to be influenced by the providers of external funding without ensuring that the way forward is thoroughly examined, is based on sound educational principles and is founded on well-informed awareness of the complex background of entrepreneurship. Indeed it is not clear whether it is possible for teachers and schools to 'grow' entrepreneurs in the classroom. Teachers meanwhile need up to date awareness of the changing needs of young people in preparing to be economically active in the current shifts in society from a welfare economy to a knowledge economy. Entrepreneurs have really been in a no-win situation where traditional left wing views have dismissed them as self-serving and profit seeking while the right expects them to respond to the needs of a free market economy. (see Giddens, 2000:75) Both of these positions can put constraints on entrepreneurial activity. Many entrepreneurs are driven to pursue ideas that have captured their interest and challenged their thinking, leaving the possible financial rewards as a by-product of the endeavour and not the main impulse for involvement. The needs of the market are not necessarily the main inspiration of people with ideas for enterprises. This chapter therefore examines definitions and the range of meanings of entrepreneurship, what it might mean to be an entrepreneur and which aspects can realistically be prepared for in schools. Policy makers should be sure of what they mean when recommending entrepreneurship for school education and take steps to convey that meaning clearly to teachers. To provide effective contexts for acquiring or developing entrepreneurial skills, as with embedding any aspect in school curricula, it is necessary for teachers to have some understanding of the concepts involved.

9.1.1 Definitions of Entrepreneurship

In his Theory of Economic Development, the economist and social scientist Joseph Schumpeter (1934, cited in Swedberg, 1991:34) defined 'enterprise' as "the carrying out of new combinations" and 'entrepreneurs' as "the individuals whose function is to carry them out" (p74).   An informed discussion of the discourses surrounding enterprise, enterprise culture and entrepreneurship can be found in the writings of du Gay and Salaman (2000), e.g.

> . . . an 'enterprise culture' is one in which certain enterprising qualities - such as self-reliance, personal responsibility, boldness and a willingness to take risks in the pursuit of goals - are regarded as human virtues and promoted as such. (du Gay & Salaman, 2000:88)

and

> No longer simply implying the creation of an independent business venture, enterprise now refers to the application of 'market forces' and 'entrepreneurial principles' to every sphere of human existence. (du Gay & Salaman, 2000:89).

Bolton and Thompson (2004) in their exploration of the talent, temperament and technique of entrepreneurs, use the derivation of the word entrepreneur as a starting point for a definition. Coming from the French *entre* and *prendre,* meaning respectively 'between' and 'to take', it "was another name for a merchant who acts as a go-between for parties in the trading process" (p14) Tracing entrepreneurial characteristics from the wealth creators who supported Renaissance artists to in turn become 'aesthetic entrepreneurs' to present day champions of business and technology they use as a starting definition:

> A person who habitually creates and innovates to build something of recognised value around perceived opportunities. (Bolton and Thompson, 2004:16)

Richard Cantillon, an Irish man who lived and wrote in France in the eighteenth century, introduced the term entrepreneur in connection with risk bearing in economics. It is Jean Baptiste Say, however, who is credited with the early use of the term within economics, at the turn of the nineteenth century, meaning those who stimulated economic progress by

finding new and better ways of doing things. Say's entrepreneur was seen as "being almost a specialist at accommodating the unexpected and overcoming problems." (Binks & Vale, 1990). According to Casson (1982), the word entrepreneur " . . . was variously translated into English as merchant, adventurer and employer, though the precise meaning is the undertaker of a project" (p19). John Stuart Mill made the term popular in England but it subsequently disappeared from theoretical economic writings. In the twentieth century, updated notions of entrepreneurship are associated with Joseph Schumpeter. Schumpeter picked up on the ideas of the entrepreneur introduced by Say, but where Say was purely interested in the economic benefits to arise from entrepreneurship, Schumpeter also looked at the wider applications and ongoing impact of entrepreneurship. He described the function of entrepreneurs, in his influential book *Capitalism, Socialism and Democracy* (1942), thus:

> . . . . to reform or revolutionise the pattern of production by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganising an industry and so on. (Schumpeter, 1950 :132)

A major theme of Schumpeter's work was his notion of 'creative-destruction' where capitalism is continually provoking innovation and progress arising out of the debris of failed or obsolete enterprises or ideas (Schumpeter, 1950:83). It is Schumpeter's entrepreneurs who are the agents of these changes because they exploit opportunities for economic progress. Contemporary descriptions of the function of an entrepreneur, as one who can create value and move the economy forward, derive from these classic definitions.

There are still differences in preferred definitions of entrepreneur and entrepreneurship. Mark Casson (1982) defined an entrepreneur as 'someone who specialises in taking judgemental decisions about the co-ordination of scarce resources." Peter Drucker (1985) has extended this sort of definition to include the exploiters of opportunities created by change. Drucker wrote extensively, over several decades, on management, economics, politics and society and defined entrepreneurship as a search for, response to and exploitation of change. He explored

ideas of entrepreneurship using many examples from different types of enterprise, and identifies various sources of, and practices and strategies for, entrepreneurial behaviour.

> Entrepreneurship is . . . a distinct feature whether of an individual or of an institution. It is not a personality trait; in thirty years I have seen people of the most diverse personalities and temperaments perform well in entrepreneurial challenges. To be sure, people who need certainty are unlikely to make good entrepreneurs. But such people are unlikely to do well in a host of other activities as well - in politics, for instance, or in command positions in a military service, or as the captain of an ocean liner. In all such pursuits decisions have to be made, and the essence of any decision is uncertainty. (Drucker, 1985, p 23)

Drucker went on to claim that if an individual can face up to decision making challenges then that person is capable of behaving entrepreneurially and can learn to be an entrepreneur. Entrepreneurship then was not thought by Drucker to derive from intuition but to be a form of behaviour with a foundation in concept and theory.

In their attempts at arriving at definitions of entrepreneurship, Binks and Vale (1990) identify the following three categories of entrepreneur from their search of the historical development of the concept.

- Entrepreneurs have been identified as reactive. They respond to market signals and in doing so convey and facilitate the market process. They are agents of adjustment.
- A second interpretation of the economic contribution of entrepreneurs is almost the exact reversal of this first category and refers to those who cause economic development by introducing and innovating ideas which fundamentally rearrange the allocation of factors of production.
- The third category of entrepreneurs . . . . . . would refer to those who, in their management, cause improvements of a gradual nature to existing products and processes. . . . . . . they change it in a gradualistic rather than a fundamental manner. (Binks and Vale, 1990)

This illustrates that entrepreneurs may operate in a variety of ways and various activities can be described as entrepreneurial depending on the definitions in use and on the impact of a multitude of mainly economic factors prevailing at the time of action.

Working more recently in the area of first defining the terms entrepreneur and entrepreneurship before exploring them through a sociological lens, de Bruin and Dupuis (2003) trawled a large amount of literature and research to reduce the range of definitions to key strands of thinking:

> Two of these strands link entrepreneurial activity to risk or uncertainty, and innovation. In these terms the entrepreneur is seen as the innovator and as the risk bearer. The second set of approaches portrays the entrepreneur as an intermediary or opportunity-discoverer and as a co-ordinator. (de Bruin & Depuis, 2003:3)

To settle on any one definition would exclude examples that could be cited of successful entrepreneurial activity from a variety of considerations. As it seems that no one definition of entrepreneurship is widely accepted on its own, some recognition of the complexities of understanding entrepreneurship should accompany exhortations to teachers to produce more entrepreneurs through the school system.

9.1.2 Social and Civic Entrepreneurship

> A society that doesn't encourage entrepreneurial culture won't generate the economic energy that comes from the most creative ideas. Social and civic entrepreneurs are just as important as those working directly in a market context, since the same drive and creativity are needed in the public sector, and in civil society, as in the economic sphere. (Giddens, 2000:75; see also p82)

Peter Drucker (1985) pointed out that entrepreneurship is not always associated with new business start up or vice versa. Entrepreneurial opportunities may present themselves in other, perhaps non-profit related, forms and these need not be confined solely to economic institutions. Building on such wider notions of entrepreneurship leads to exploration of aspects of social and civic entrepreneurship.

The terms 'social entrepreneurship', social entrepreneur' and 'social enterprise' are being used increasingly often. There are several ways in which entrepreneurs' enterprises or activities can claim to merit description as social entrepreneurship and the label can refer to a number of

different business practices that have some connection to promoting 'social good'. Some are businesses designed to make profits but whose leaders have socially aware intentions in developing their product, or go about organising their businesses in a way that brings added benefit to their employees and customers. There are others whose aim is less to make financial gains than to present some product or service that brings good to society. Yet others use profits, once accrued, for the direct benefit of communities or individuals. Bolton and Thompson (2004) remind us that a common problem for businesses that see themselves as social enterprises is that they can focus too much on their benevolent impact and fail to make practical decisions or maintain the business impetus that is required to keep the enterprise going. It can be difficult to focus on business indicators because, as Bolton and Thompson (2004:180) suggest, the organisers of social enterprise can be "too focused on the cause they serve" or become "less business like than they should be because they believe that 'the cause is all'."

> For social entrepreneurs the social mission is explicit and central. This obviously affects how social entrepreneurs perceive and assess opportunities. Mission-related impact becomes the central criterion, not wealth creation. Wealth is just a means to an end for social entrepreneurs. (Dees, 2003)

Many social enterprises are supported by volunteer and unpaid work but they often also have a champion who has either set up or manages to maintain the business and who displays similar entrepreneurial characteristics to entrepreneurs in other types of enterprise. They use their skills to build social rather than financial capital.

Also within the realm of concern for the social effects of entrepreneurship are ethical considerations. Moore and deBruin (2003) claim that, at a micro level, there is an expectation that ethical norms be applied in business for the 'social good' and to benefit future generations. Deciding on the values to be applied can be complex, particularly as globalising influences affect the scope for working across countries and cultures where norms may vary. It is suggested that adopting some universally accepted standards, e.g. the United Nations' Universal Declaration of Human Rights would help to set minimum standards for ethical

transactions. At a macro level, we are reminded that demands on business are growing with respect to the natural environment, ecological systems and generally increased global awareness that exploitation of people and of the environment is 'unsustainable and unethical' (p45). These particular aspects of entrepreneurship can be explored critically in schools perhaps in Business, Social or Religious Education, or where there is a programme of Citizenship Education. They are to be found in the curriculum in many Scottish schools and young people can reflect critically on the values and social practices encountered in issues of global citizenship. Schools are likely to encourage exploration of areas such as fair trade initiatives or ethical business and investment practices through concern for global issues.

The view of social entrepreneurship espoused by Charles Leadbeater (1997) in the DEMOS publication *The rise of the social entrepreneur* is of a modern version of the charitable and voluntary organisations that had such an impact in the UK in the nineteenth century. Leadbeater ties his definition of social entrepreneurship to the setting up and running of organisations that improve the welfare of society.   There is a strong history of such organisations in the UK, run by philanthropists for the common good and some of these had their origins in religious foundations although many of the Victorian factory owners who engaged in good works for the poor did so from personal positions of huge wealth and financial security built up in contexts of a work ethic that condoned profit making and viewed the poverty and humble condition of the workers as part of a God-given plan. Voluntary organisations have remained in place along side the Welfare State that took on much of the role of social reform and support after the Second World War. Many of these organisations are finding it difficult to cope with the scale of contemporary needs in society due to changing economic and social circumstances and to the inability to manage their affairs in a manner sufficiently business like to sustain their aims and ways of working. Finding funding and managing finances is a major concern for these groups. Leadbeater argues that individuals and organisations with the same portfolio of entrepreneurial skills as those who inspire business generation and success are needed in social organisations to maintain both the welfare and the 'common good' of society:

A professionalised, innovative and entrepreneurial sector of social organisations will be a vital ingredient in a modern welfare system.
Social innovation holds the key to our social ills. Social entrepreneurs are the people most able to deliver that innovation. (Leadbeater, 1997:20)

Another area, connected to but not the same as social entrepreneurship, is civic entrepreneurship. Innovative and motivational workers, most likely in public sector employment, who display some of the same characteristics as social entrepreneurs and business entrepreneurs in their creativity and lateral thinking, demonstrate this variety of entrepreneurship but there are some differences in the contexts within which they work (Leadbeater, 1998). They are often more restricted in use of finances because their funding is usually public money, they tend to operate within very large organisations, for example, local authority departments and they are usually held accountable for their actions by their managers. The exercising of political skill is often required in civic entrepreneurship within the public sector and this is usually within teams or committees rather than working as an individual. The end products of civil entrepreneurship are not outputs in the production sense but rather outcomes that are evidence of the enhancement of social or indeed human capital.

9.2 Who wants to be an entrepreneur?

Having ascertained that there are multiple definitions of an entrepreneur depending on context and interpretation, we can explore the kinds of people who might become entrepreneurs. There are characteristic personality traits recognisable in entrepreneurs and through observing the ways in which successful entrepreneurs operate it may be possible to know some of the signals to look out for as indicators of entrepreneurial potential. Some factors to look out for and avoid might also be gathered from examination of failed projects. Bolton and Thompson (2004) have examined the results of studies of entrepreneurs and entrepreneurship and summarised these into categories of personality factors and behavioural factors before providing numerous pen pictures of actual entrepreneurs, most of whom are well-known figures, who exhibit the various characteristics identified. The following arises from the points

made in Bolton and Thompson's work. In terms of *personality* attributes, entrepreneurs need to have motivation and the emotional wherewithal to do something that is different and to keep on with what they choose to do despite setbacks and difficulties. They may be motivated by a desire to achieve or by a need to be in charge or to have power. They need to be able to cope in very competitive situations and be emotionally resilient to enable them to bounce back if they lose out. There is a classic educational and sociological debate on whether human personality factors are part of a person's inherited legacy or develop as a result of the impact of their environment, the Nature/Nurture question, and it has a parallel in the question of whether entrepreneurs are born or made. There are entrepreneurs who could be described as having been born with the capacity to succeed and others whose success seems to have been acquired later in life when their situation and circumstances dictated or allowed. When interviewed for the Guardian newspaper (Brignall, 2002) a small group of lecturers on Entrepreneurial Studies programmes in the UK agreed that it was probably 'entrepreneurial spirit' that people can be born with but that "people starting businesses in specialist areas need specialist skill" hence the need for education. It is notoriously difficult in the personality debate to isolate factors that would allow researchers to arrive at a definitive conclusion and likewise in the 'are entrepreneurs born or made?' debate the arguments look set to continue. It is difficult to ascertain that environment has had no impact on the apparently intuitive entrepreneur and equally the late developer may have always had the pattern in her genes but it may have taken an external trigger to activate it. Because of the huge variation in 'talent, temperament and technique' demonstrated by entrepreneurs, it seems logical to conclude that both sources may be present in varying proportions in every individual. Bolton and Thompson (2004) indicate that the view currently popular is that entrepreneurs *can* be made, so that individuals with no discernible inherent characteristics can learn to behave entrepreneurially if desired. The multitude of higher education programmes available for the study of entrepreneurship would support this belief but it could also be refuted by the seemingly high failure rate of risk taking enterprises.

The *behavioural* characteristics exhibited by entrepreneurs have also been collated by Bolton and Thompson (2004), arising from their analyses of the results of various studies and these are easily recognisable in different proportions in the many successful individuals that they have described. It is however straightforward to recognise characteristics in already successful entrepreneurs but for aspiring entrepreneurs who exhibit some of these characteristics it is still not possible to accurately predict who will be able to use them to fulfil their ambitions. The characteristics listed are selected from a large collection attributed to the *Encyclopaedia of Entrepreneurship* (Kent et al, 1982) and they are: perseverance and determination; ability to take calculated risks; need to achieve; initiative and taking responsibility; orientation to clear goals; creativity; honesty and integrity; and independence. Bolton and Thompson have supplemented the list with: opportunity orientation; persistent problem solving; and internal locus of control. Entrepreneurs appear to come in a wide range of different types despite having varying degrees of the above factors in common.

Bolton and Thompson (2004) have further identified a number of environmental factors, from collated research, that appears to influence the development of entrepreneurs. Family background can be significant with a high proportion of entrepreneurs coming from families where one parent is already an entrepreneur and being a first-born son also increases the chances, although there is no similar claim made for daughters! Level of education does not appear to be significant with most entrepreneurs having the same level as the general population and in many cases a good bit less. As will be mentioned later in this chapter, undergraduates may find that too much education can stifle the progress of aspiring entrepreneurs and may in fact bury their latent talent. Most entrepreneurs are young, realising their ambitions at around twenty-five years of age, with some describing having been engaged in entrepreneurial activities since their school days. Another window of opportunity for some people to take an entrepreneurial plunge seems to be at or over forty-five years when career changes can tip a 'nothing to lose' or 'now or never' attitude. An exception for education and age averages is in high tech areas where sophisticated technical knowledge that takes some years to muster is necessary for the level of know how required.   Many

entrepreneurs start with work experience in the industry where they go on to make their mark. In some cases being part of a company provides a role model for learning good business practice and in some, bad experiences can provide the push to encourage entrepreneurs to strike out and set up on their own. It is clearly possible to describe entrepreneurial characteristics from the data that we have about the behaviour of historic and contemporary entrepreneurs, but using this to try to spot entrepreneurial potential in the population has proved less than successful.

> Whilst we may be able to describe the 'typical entrepreneur' we do not feel that this brings us any nearer to being able to *identify potential* entrepreneurs. The fact that research has repeatedly shown that many entrepreneurs share certain background and personality characteristics for example does not mean we have a predictive cause-effect model. Others with the same characteristics do not become entrepreneurs. (Bolton & Thompson, 2004:27)

9.2.1 The Entrepreneurial Self

Since the era of market reforms that swept the UK during the years of Conservative government, particularly in the reforming and restructuring of the Thatcher era, individuals have found themselves responsibilised in a manner not seen since pre-Welfare State days and more under pressure due to the technological advances of the intervening years. With those who could recall the days prior to the Second World War already retired, the workforce, at the start of the New Right political influence, could remember nothing but heavy state and union dependency. The introduction of neoliberal practices through privatisation and a free market economy provided unprecedented opportunity for some and withdrew the security blanket of the so-called nanny state for others. All were to become responsible for their own situations and develop enterprising attitudes to providing for themselves.

> The state has only been able to begin the process of writing itself out of its traditional responsibilities concerning the welfare state through twin strategies of a greater individualisation of society and the responsibilisation of individuals and families. (Peters, 2001:59)

Individuals thus removed from the care of a welfare state have to take responsibility for engaging in a welfare economy by managing and administering their own monetary affairs and

ensuring that they are economically provided for through investments or insurance. They have to operate entrepreneurially regarding their own economic affairs. Each has to develop the entrepreneurial self. (Peters, 2001)

> . . . new forms of governing the self have emerged (through globalisation) - often in the form of the "entrepreneurial self" -- which sets its sights on maximizing individual benefits, while often eschewing common good concerns. (Rizvi, 2002)

9.3 Entrepreneurship Education

Whether or not it is possible to learn how to be an entrepreneur, it seems realistic to attempt to organise schooling to allow people to develop and hone those skills that they have come by naturally or have been inspired to adopt. At higher education level this is certainly available, although the success rate of graduates in subsequent entrepreneurial activity is not as promising as might be hoped. Bolton and Thompson (2004) make the following observation:

> Entrepreneurs are certainly not like most of us. They are a minority group. From experience with engineering undergraduates . . . . it was concluded that 10-15 per cent of this student group were potential entrepreneurs. More rigorous assessments . . . . of the population at large have come up with a similar figure. On making this comment to many audiences we have been told that this might be the potential number of entrepreneurs but the real number is more like 1 per cent. Others have said that the potential number is much higher and have quoted figures for the US of more than 40 per cent. (Bolton & Thompson, 2004:14)

This is of course distinguishing between potential and eventual entrepreneurs and in an engineering rather than purely entrepreneurship studies context. There can also be a difference in interpretation of who can be described as an entrepreneur. Some countries, notably the US, include anyone who sets up a business and others, such as the UK, employ a narrower interpretation citing those who succeed in exploiting an opportunity through some significant risk taking. Entrepreneurship can be taken as a subject in many higher education establishments and degree qualifications are awarded, with US universities having offered such programmes for many years and other countries now offering the same. Because being an entrepreneur is a proactive endeavour, these courses would need to involve a lot of active

learning and learning-by-doing if they are not to risk the "clear possibility that (they) might put off and constrain potential entrepreneurs and bury their talent still deeper." (Bolton & Thompson, 2004:322) This could be further strained by the use of the traditional learning and teaching styles and assessment methods that many universities require. Programmes in new areas in the UK have to compete with long established areas of study and there is always a risk of newer areas, such as entrepreneurship studies, being subjected to the jibe of being 'Mickey Mouse' subjects until they have earned their academic credentials. Some programmes are for individuals who are already operating as entrepreneurs and who might want to develop a particular skill that could be of use, for example, learning about business management or how to attract capital investment for their ideas.

In school education there are good reasons for building entrepreneurship education into the curriculum. One is that political changes to the way in which society operates demand different responses from school education in preparing young people for their economic roles and another is that we cannot afford to be left behind in the highly competitive business markets that now exist. Schools would be failing their pupils if they did not acknowledge these shifting conditions and did not try to provide support. If this is accepted by policy makers and teachers, the next question is how best to address entrepreneurship in the curriculum. It is realistic to consider programmes that articulate with tertiary entrepreneurship programmes for senior pupils who have made subject specialism choices and most probably have also made decisions about career pathways. Close working with business experts and actual experience in industry can be successfully undertaken at this level. In the primary and early secondary stages, there are programmes available to Scottish teachers and pupils, but they are mostly of the project or topic variety that can be slotted into existing curricula. At these stages, however, it can be invaluable to embed the development of entrepreneurial behaviours, attributes and skills into the wider curriculum. Allan Gibb (1993) has commented on this approach:

> The challenge is to allow young people to experience and feel the concept rather than
> just learn about it in the conventional sense. (This) leads to emphasis on a pedagogy

that encourages learning: by doing; by exchange; by copying; (and learning from the experience); by experimentation; by risk taking and 'positive' mistake making; by creative problem solving; by feedback through social interaction; by dramatisation and role playing; by close exposure to role models; and, in particular, interaction with the outside/adult world. (Gibb, 1993)

Using these methods would indicate that teachers were themselves being creative and enterprising in devising learning contexts for pupils. It could be put into the wider category of enterprise education with less focus on the growing of business and entrepreneurial aspects. This is how an inspirational and motivational teacher would organise learning experiences for pupils in any area of the curriculum although often this kind of teaching is stifled by the demands of accountability and performativity. An entrepreneurial teacher will be able to take the risk of handing more control to pupils to give them more ownership of their own learning. But some would argue for more focussed entrepreneurial teaching at the earlier stages. The UK government has backed calls for more entrepreneurial learning in schools and Black et al (2003) view this as "essential for economic growth on a national level" and that it would involve "developing pupils' 'world view' to promote entrepreneurship as a viable career option". This would require that school pupils should be able to consider enterprise and entrepreneurship as integral to their perspective on how the world operates so that it would be realistic for them to consider themselves as participants. There would need to be:

> . . . a shift in understanding from enterprise skills and capabilities conceived of as generic, to their being conceived of as task, process and context specific. The value of this shift in understanding brings a new focus to enterprise education. (Black et al, 2003:5)

Looking at the factors that define entrepreneurship and support the development of attitudes and dispositions, which would encourage individuals to be entrepreneurial, Binks and Vale (1990) comment on educational factors which should first be in place. For entrepreneurship leading to practical developments that have real influence on economic conditions, the suggested requirements for individuals are 'problem solving, ingenuity and motivation'. The education system is cited as the "immediate mechanism through which the twin aspects of

creativity and problem solving can be approached." (Binks & Vale, 1990:131). Moves away from didactic teaching to more active and flexible learning experiences, as promoted in Scottish schools across the range of aspects of the National Priorities (SEED, 2000), are important for this. Binks and Vale also suggest that there is a need for teachers to be well informed themselves in order to be able to devise appropriate contexts for learning.

> . . . . it is unlikely that teaching staff with limited horizons and an unawareness or hostility to a broader commercial and industrial world will create an atmosphere conducive to the development of creativity . . .(Binks & Vale, 1990: 131)

Allan Gibb (1993) has suggested that teachers and policy makers need to "define the 'entrepreneurship' concept in an educational context", be clear about the rationale for its inclusion in education and consider its organisational, and teachers' competence, implications. Schools should provide opportunities for the development of entrepreneurial behaviours, attributes and skills for everyone because there is now an expectation that all activities will be carried out in an innovative and creative manner. Pupils will have different requirements from entrepreneurship education depending on their personal career aspirations but every type of work can be approached in and benefit from an enterprising manner. Since successful entrepreneurs take risks and learn from the consequences of the undertakings, entrepreneurship education in the classroom should incorporate learning vehicles that provide useful experiences for young people.

Aspects of enterprise and entrepreneurship education have an increasing role in Scottish schools. The extent of the impact on career aspirations and entrepreneurial intentions has recently been called into question, however, by a research report from the University of Strathclyde (Brownlow et al, 2004). The report, which was funded by the Scottish Executive in connection with the Determined to Succeed initiative, comments on young people's perceptions of enterprise, making specific reference to entrepreneurial aspirations. The career intentions of participants were examined and led to results that suggest that longer-term benefits are not yet being realised. Enterprise activities in school appeared to be influencing

work aspirations over time but although a small percentage indicated that they would want to start their own business these were not particularly entrepreneurial but rather business management intentions. Another report, commissioned for the Scottish Executive Education Department and carried out by a team of professional researchers, showed similar results for entrepreneurial aspirations (Langford & Allen, 2005). Asked about factors that were important to respondents in their career plans, 'doing a job you enjoy' was the first factor with 'earning lots of money' well behind and another large gap before the third choice of 'being your own boss'. Clearly entrepreneurial intentions are not high for these school students. The findings of these two Scottish surveys contrast sharply with an American study (Kourilsky & Walstad, 2000:23) in which 'To be my own boss' was overwhelmingly in first place, well ahead of second choice 'To earn lots of money' with both of these a long way ahead of the other more social or civic aspirations. Kourilsky & Walstad comment that this, and other US surveys with consistent results, indicates that "youth preparing to enter the new millennium are strongly oriented towards grounding their initial careers in the practice of entrepreneurship (Kourilsky & Walstad, 2000:15). Barriers for Scottish pupils appear to be that of varied pupil, teacher and policy maker's perceptions of the nature of enterprise or entrepreneurship education and how these should be conducted in schools. Particularly in the secondary sector, there are organisational and cultural obstacles to embedding activities or giving them space in traditional, subject and examination driven contexts. The curriculum in secondary schools is subject driven and while teachers and managers struggle to cope with the limitations of this traditional set up, aspects such as enterprise and entrepreneurship education can be perceived as burdensome add-ons. Young people clearly enjoy enterprise and entrepreneurial activities and teachers report success in the ventures undertaken with improved decision-making and management skills for many pupils. Why then are these skills not being translated into success in ventures beyond school? It may just be too soon to see any benefits from what has been offered so far, but perhaps there is an answer in part in an area that Patrick Firkin (2003) calls entrepreneurial capital. Despite possessing the wherewithal to operate successfully in school based enterprises, for young people to have 'multiple forms of capital' at their disposal, when it may be required for entrepreneurial

behaviour as contributors to the economy beyond school, may be more difficult. Firkin arrives at descriptions of five forms of entrepreneurial capital:

- Economic capital, which is the financial equity which they can muster and then maintain;

- Human Capital, which can be formal education and training acquired but can also include skills and experience and generally useful personal characteristics;

- Social Capital, which can refer to the benefits which can be derived from membership of social networks or structures and the establishment of a range of supportive relationships;

- Cultural Capital, which can be positive resources and opportunity deriving from common ethnicity; and

- Physical capital, which refers to availability of facilities and equipment.

Firkin sums up with:

> The concept of entrepreneurial capital is based on the total capital that an individual possesses, which is, in turn, made up of the sum of their economic, human, social, cultural, and physical capital. . . . . the entrepreneurial capital a person possesses is made up of the components of their total capital that have an entrepreneurial value in that they have some worth in an entrepreneurial context and in relation to the entrepreneurial process. (Firkin, 2003, p 65)

In school education relevance may be more achievable than realism and it is teachers' informed practice in establishing relevant learning contexts which will enthuse young people and open minds to their future economic, enterprising and entrepreneurial potential.   Young people in Scottish schools will possess these forms of capital in varying degrees. Enterprise education should then be designed to help pupils to improve their levels in those areas that can be altered within the school context and to allow them to utilise what they bring from outside of school.

Some projects that are undertaken by school pupils have been judged to be very successful against criteria relating to financial profit or level of enjoyment and fulfilment experienced by pupils. For the pupils concerned, however, how realistic is their situation when the school

environment necessarily still cushions them? It would be very difficult to simulate conditions

to allow for development of some of the different aspects of entrepreneurial capital, as described by Firkin, through enterprise education in the classroom or while the young people involved are still within the school system. Perhaps the lack of noticeable transfer of entrepreneurial capital is because individuals may not know how they will respond until in a truly make-or-break entrepreneurial situation. If this is indeed the situation for enterprise and entrepreneurial activities in schools, then perhaps the best that teachers can do is to try to promote the 'creativity and problem solving' activities as described in Binks & Vale's (1990) work mentioned above. It may be that the very activities that are being undertaken and are so popular with teachers and pupils alike are indeed the best way to do this. It is certainly the intention to press ahead in Scottish Schools in efforts to change attitudes and cultural limitations to enterprising education as can be seen in the most recent review document to be published by the Scottish Executive Education Department (SEED, 2004). Teachers and policy makers, however, should be clear about the limitations of activities and beware of having false expectations or of attributing mistaken benefits to the processes. Overall there is an onus on teachers to be innovative and take risks to enhance the experiences available to their pupils, so they must first become more informed about what might be achievable and also entrepreneurial in their own attitudes and approaches to teaching and learning.

A brief survey of student teachers' understanding of entrepreneurship, carried out with finishing students on a variety of teacher education programmes in Glasgow University's Faculty of Education, provided some not unexpected results. Asked to define entrepreneurship, the definitions offered were confused and imprecise, with many admitting that they just didn't know the meaning. This would be worrying if it were not for the fact that their attempts to find definitions in fact produced words and phrases that would indicate that there exists among these student teachers some sense of the characteristics of entrepreneurs and their activities. Among the collated responses 271 different words or phrases were used.

The top responses were:

Word or phrase	Times Used	%	Cumulative %
Idea/innovation/space in market/opportunity	64	23.6%	23.6
Start/new business	53	19.6%	43.2
Make money/profit	27	10.0%	53.2
New product	19	7.0%	60.2

The next responses come numerically a long way after the above but are mostly related to accepted descriptions of entrepreneurial behaviour. Most of the responses therefore picked up on aspects of commonly used definitions of entrepreneurship such as are described earlier in this Chapter. This is a good basis but would I believe be insufficient in itself to support these students in their future teaching and too vague to assist them in constructing entrepreneurship based learning opportunities for their pupils. These students require, either before the end of their teacher education programmes or early in their career development planning, input on the importance of entrepreneurial education, opportunities to discuss, debate and arrive at understanding of the nature of entrepreneurship and access to appropriate resources and means of building it in to their teaching, regardless of their subject specialism or the stage at which they will teach.

Teaching entrepreneurship in schools should consist of teaching about entrepreneurship with the intention of igniting a spark of creativity and innovation in young people. Every area of the curriculum should contribute to this so teachers need to be creative and innovative about their teaching. An understanding of the meanings of entrepreneurship and of how people can become, and operate as, entrepreneurs is crucial for this and should be built in to teacher education and to continuous professional development programmes for teachers.

9.3.1 Determined to Succeed

As explained in Chapter 8 above, documentation in Scotland in the nineteen nineties referred to enterprising and entrepreneurial aspects of education as education for work, carefully

avoiding the title enterprise education, although it was used widely in curriculum documents in other parts of the UK, and making no reference to attempts to make pupils entrepreneurial. The Scottish Executive Education Department's most recent document *Determined to Succeed: A Review of Enterprise in Education* (SEED, 2002) has made explicit its aspirations to establish an enterprise culture through enterprise in education and in fact has stressed the particular aim of making young people more entrepreneurial by exposing them to business practice and emulation of entrepreneurs in their school activities. There is recognition in the Document that young people may take up different roles after school, namely as "employees, employers and entrepreneurs" which, despite its optimism that all will be involved in working roles, does concede that not everyone will be a leader in, or provider of, work. It is the now overtly stated and often repeated exhortations to make pupils more enterprising and thereby increase the number of entrepreneurs emerging from pupil cohorts that stand out in this documentation as SEED hope to generate greater 'entrepreneurial dynamism'.

Initiatives relating to *Determined to Succeed* (DtS) and their implementation have been treated differently to other curriculum agenda that have been developed in Scotland in recent years. The document deals with the educational aspects of a wider policy initiative in Scotland, *A Smart Successful Scotland: Ambitions for the Enterprise Networks* (Scottish Executive, 2001) that relates to the Scottish Executive's drive to improve economic prospects and performance in the country as a whole. The Scottish Executive Education Department has procured funding agreements with businesses and with a number of Scottish entrepreneurs who are committed to supporting the developments recommended in the DtS document. The Executive also remains in control of implementation by employing seconded school staff directly to the Department of Enterprise, Transport and Lifelong Learning who work for the Executive to disseminate ideas and share good practice with all schools.

The way in which entrepreneurs are becoming personally involved in educational curriculum development, and indeed contributing financially to the expansion of education for enterprise and entrepreneurship creation, reveals a change in approach for education policy makers, at

least in this aspect and particular purpose of education. This wider influence and concern is potentially very positive but if restricted to narrow bands of interest it may fail to have an impact on the curriculum more generally and encourage neglect of other purposes of education. It could also be seen as evidence of a more general privatising attitude beginning to have an impact on education in Scotland. Stephen Ball (2007) has recently written about changes in political processes and the role of the state, in organisations, people and their social relationships, suggesting that privatising influences in education may well be part of a broad scenario of social changes.

> Privatisation is an ongoing but stable process which encompasses changing relationships between the state, capital, the public sector and civil society and which connects the grand flows of the global economy to the re-working of the textures of everyday life, for students and teachers (and researchers), and families. (Ball, 2007: 185)

We already have in Scotland the kind of private influences that Ball describes in the services that are supplied in an educational market place on the Internet and through private consultancy. The input of private individuals in Scottish education could arguably be seen as part of such a societal change.

The current review of the curriculum in Scotland, which is looking at provision as a whole between the ages of three to eighteen, has included the aspirations of *Determined to Succeed* (DtS) within its outcomes and early programme of work and in its stated 'aspirational capacities' i.e. its purposes. The proposed new curriculum, entitled *A Curriculum For Excellence* (SEED et al, 2004), includes implicit reference to the values, skills and attitudes espoused by DtS in all four of its stated capacities and also explicitly in the particular capacity named *effective contributors*. This review is not intended to be a rewriting of all parts of the current curriculum but rather a realigning of purposes and some structures to provide a more coherent and less complex framework within which to provide access for all young people to relevant and life-enhancing learning experiences. Opportunities to learn about entrepreneurship and to engage in activities that may generate entrepreneurial attitudes

and aspirations should be among these experiences.

9.4 Economics Education: Shifting Status in Scotland

> It is vital that individuals are empowered to cope with the everyday economics of earning, consuming, borrowing and saving in a world that is increasingly economically complex. The ordinary citizen in Europe today needs to understand about interest rates, loans, credit and debit cards, share-holding, pension schemes, public and private funding arrangements, and so on. Those who fail to understand are disempowered, and may find themselves financially disadvantaged. (Hutchings et al, 2002:1)

In exploring the genealogies of enterprise education and entrepreneurship education in Chapter 8 and above in this Chapter, as they have impinged on the curriculum in Scottish schools, I have noticed the importance for teachers of having not only factual but theoretical understanding of these aspects of curricula. In practice however these two aspects can and should be located within the knowledge requirements of another area of general importance to all teachers when devising contexts for learning that relate to work, that of economics. Knowledge and awareness of the three areas of Enterprise, Entrepreneurship and Economics, can provide invaluable support to teachers when addressing education for work (Fagan, 2006).

Young people require to be supported in developing understanding of a range of economic issues that they will encounter both personally and socially. Despite being known as the birthplace of modern economics, thanks to Adam Smith, the father of modern economics and author in 1776 of the famous and influential work *The Wealth of Nations* (Smith, 1991), the teaching of Economics as a discrete subject in Scottish schools is diminishing. In secondary schools the subject is now rarely offered as an option for study, with other subjects such as Modern Studies, Business Management, programmes for Personal and Social Education and Religious and Moral Education addressing some of the traditional areas of study in Economics. This decline has been accelerated by a shift of emphasis within Business Studies

programmes. In recent years Business Studies Departments in secondary schools have offered separate courses in the subject areas of Office Administration, Accounting and Economics. New courses in Business Management have been developed which comprise elements from all three of the former topics. The economics element in Business Management now places a stronger emphasis on business-related aspects and less on the theoretical and statistical analyses previously taught in schools. Some of the teachers who were qualified to teach Economics were located in Social Subjects departments and tended to concentrate on more theoretical aspects of economic concepts. This route to the study of Economics in schools has virtually disappeared. In practice the reality has been, and still is, that only a few pupils have the opportunity to study economic concepts and applications as part of their programmes of study. The Standard Grade course available was rarely offered. Visit www.scotland.gov.uk/Topics/Education/School for a description of the curriculum in Scottish Schools. Some pupils in S5 and S6 (years 5 and 6 of secondary education) opted for Economics at Higher Level. Currently Business Management is available at Intermediate I and II as well as Higher, so it is still only taken by those pupils who opt in to the subject, although it is proving to be a popular option and in some cases work on the Intermediate Levels has been introduced with younger pupils than S5 in some schools. The Faculty of Education at Glasgow University still offers a Teaching Qualification in Economics within its one year Professional Graduate Diploma in Education (PGDE), as do other teacher education establishments, but this is as a second subject only and it is becoming increasingly difficult to locate school experience placements, even for the very small number who take up the course, because so few schools are offering economics as an option choice to their pupils.

For the purposes of a general education that addresses preparation for the world of work, young people require sufficient economics education to ensure their economic socialisation. This refers to the levels of understanding and development required to be able to operate in the economic world. Jacob De Rooy (1995) promotes the necessity of being aware of elements of the economic environment such as "business cycles, unemployment, wages, inflation, interest rates, financial markets, banking, taxes, government regulations, economic

policies, and foreign trade and investment." De Rooy claims that basic awareness is necessary in every walk of life and this makes particular sense for teachers who will be devising learning contexts in Education for Work settings for their pupils. Teachers' levels of economic awareness should be sufficient to sustain their pupils' economic socialisation. Roland-Levy (2002) refers to this level of awareness as "'naïve economics', the economics of non-specialists". This should be a minimum requirement for all teachers.

In primary and early secondary stages, it could be argued that many facets of economic awareness are embedded in the wider curriculum. Aspects of money and its use can be found in the Mathematics curriculum dealing with personal finance and further elements can be seen in Personal and Social Education. Issues such as the management of resources, dealing with scarcity and recycling for environmental concerns can be identified within Environmental Education. General aspects of business economics can be involved in projects within Enterprise Education as can a wide range of practical and personal economic issues relating to a work environment. Economic roles and responsibilities in the community can be addressed through Citizenship Education. In the first and second years of secondary school, most students would study Home Economics. The subject does include some economic education in relation to home and personal finance as the name implies but would generally be considered as one of the places where aspects of economic awareness are embedded in the wider curriculum. Although these and other aspects of economics can be identified in several curriculum areas in Scotland, this means their being embedded in wider contexts and addressed through guidelines rather than detailed prescription. The extent to which these economics aspects are given emphasis depends entirely on the background of knowledge and understanding of the teachers devising the contexts for learning. This in turn depends on teachers having had access to and awareness of economic concepts in their own studies or general background of experience. This approach could be satisfactory if it were not for concerns about the general lack of economic literacy of teachers who have not had the opportunity to study economics or to develop sufficient economic awareness for themselves.

A small study that I have undertaken with student teachers in the Faculty of Education of Glasgow University (Fagan, 2007) exposes a significant lack of awareness of economic contexts and a dearth of economic literacy among the respondents. There is a clear need for the inclusion of economic awareness in all teacher education programmes, perhaps most usefully related to enterprise education courses along with discussion of the importance of emphasising the economic purposes of general education (Winch, 2000). This could make a difference for those teachers who are yet to qualify, but something also needs to be done to support serving teachers. Continuous Professional Development (CPD) opportunities could be provided as part of the current broadening of access to such development for all teachers in Scotland. It would make good sense to include economic literacy in the programmes being devised to support the delivery of the current enterprise/entrepreneurship education initiative of *Determined to Succeed* (SEED, 2002). Serious consideration is necessary of the breadth of economic knowledge and skills necessary to set realistic contexts for learning in cross-curricular or embedded approaches. Teachers and student teachers require the support of the teacher education institutions in acquiring this background and exercising the professional judgement required to apply it effectively in support of economic literacy.

There are examples of efforts to raise standards of economic literacy in other countries that provide interesting ideas and models of practice and two examples are offered here. There has been a Campaign for Economic Literacy in the USA, organised by the National Council for Economic Education (NCEE, 2002), the results of which are now being used to promote awareness raising activities. The Council supports the teaching of economics in schools and provides a broad range of resources for the teaching of economics. This is a good example of an effective awareness-raising campaign and the resources available are of high quality. Care should be exercised however by Scottish teachers to recognise the differences in the economic contexts of the USA and the UK and the different curriculum approaches adopted. The campaign is organised by teachers who are trained in and focussed on economic education and it is only in more recent times that NCEE members have been locating economic literacy along with social and civic educational requirements. Generally the approach is more narrowly

focussed on economics relating to consumer action and market-driven economics. There is an interesting approach to promoting economic literacy to be found in a resource produced for Irish school students called the Economic Literacy Activity Pack (Kawano, 2002) which provides a course of study on some basic aspects of economics with an emphasis on the economic knowledge necessary for both national and international development. Economic concepts are explored in this resource but the contexts are more inclusive of other areas of the curriculum and have a strong values element running through the examples selected for the activities for students. This kind of material would not be unfamiliar to some Scottish teachers developing enterprise themes within values and religious education settings. Many of the charitable and development agencies based in the UK have developed resource packs for schools that support the teaching of economic literacy and awareness within these interconnected dimensions.

If teachers in primary or secondary schools wish to teach economic literacy and raise economic awareness among their pupils, provided they possess such literacy and awareness themselves, they can address the concepts through many aspects of the curriculum. It has already been indicated where this might be done through rather obviously connected curricular areas but other means may also be used to explore economic concepts in schools. An interesting study, for instance, has been made by Michael Watts (2003), exploring a range of excerpts from literature, which provide examples of economic concepts in a variety of contexts. It is shown that, through the study of literature, and with the help of teachers who can make the relevant connections for pupils, the impact of economic factors can be powerfully illustrated. It is this cross-curricular and embedded approach to economics teaching that is being favoured in the curriculum in Scotland. One of the aims of the new curriculum that is currently being developed in Scotland is to consider learning outcomes across curricular areas in order to ease the rigid subject demarcations currently present, particularly in the secondary sector (SEED, 2002) and promotes the broader aims of supporting young people in becoming successful learners, confident individuals, responsible citizens and effective contributors. This will require the expertise of teachers who can deal

with such broad aims across curricular areas regardless of their subject specialism and will make all teachers responsible for embedding cross-curricular themes. The work-related purposes of the curriculum, specified within enterprise education, but in effect present in all curricular areas, will need to be addressed by all teachers. There is a danger that we assume that aspects of the curriculum are embedded without being sure that teachers have the necessary background and awareness to be able to devise contexts for learning that do actually give sufficient emphasis to the required outcomes. Embedded aspects such as enterprise education, entrepreneurship education and education for work can be expected to be better understood and more creatively managed by teachers who have some background of economic awareness.

9.4.1 Financial Education in Scottish Schools

Aspects of personal finance in secondary schools were once firmly placed within the subject of Arithmetic which, although clearly linked to the mathematics curriculum, was taught separately in preparation for examinations prior to the introduction of Standard Grade in the early nineteen-eighties. Likewise arithmetic in primary schools contained some learning about uses of money and basic personal finance issues. The mathematics curriculum subsumed arithmetic, including financial literacy, thereafter, but there seems since then to have been a decline in the emphasis placed on matters of personal finance, at least in secondary schools, an informed observation that I can make as a former teacher of secondary mathematics, with experience of the school mathematics curriculum from the mid nineteen seventies to the mid nineteen nineties. Perhaps due to awareness of this lack of emphasis, linked with the reduction in teaching of economic concepts as outlined above, the Scottish Executive Education Department (SEED) established the Scottish Centre for Financial Education in 2002. Learning and Teaching Scotland, although intending to locate financial education within A Curriculum for Excellence, have since published interim guideline documents for financial education in primary and secondary schools.

The Primary document, *Financial Education in Scottish Primary Schools: building on existing practice*, (SEED, 2005b) suggests levels of financial learning under three headings, namely: My family and our community; My community and our Country and; My Country and our World. The document states that everyone needs to learn to:

- understand key financial and economic ideas
- be skilled in managing their financial affairs
- recognise the importance of using financial resources responsibly
- be able to operate in a confident and enterprising manner

There are useful suggestions as to how to build learning about financial matters into the curriculum that could indeed be built upon existing practice but that also incorporate wider aspects that can be linked with enterprise education and global citizenship.

The document for secondary schools entitled *Financial Education in Scottish Secondary Schools: Education for Personal and Social Development* (SEED, 2005c) takes a different approach and places such education within the cross-curricular area of personal and social education as the title suggests. This document is disappointing in its approach to promoting personal finance and financial literacy as it does little more than commend the study of financial issues and recommend some related resources. It is often more difficult to locate topics in the secondary curriculum, particularly while the current set up of subject specialism persists, but this seems a very bland way of promoting the area. The study of economic awareness that I have undertaken with student teachers (Fagan, 2007), (see above) included several questions about competence in dealing with personal finance and indicated that for many of the participating students, particularly those not long out of secondary education, this represents an area of confusion and even ignorance. We must hope that the detailed contexts currently being devised for A Curriculum for Excellence will encompass useful and relevant opportunities to build up personal financial capability along with economic literacy and that its purposes will be developed intact in the spirit in which they are included in the curriculum's aims and capacities.

These deliberations on entrepreneurship, economics and financial education address questions 3, 6, 7 and 8 that were posed in Chapter 1. Specific calls for education that encourages entrepreneurship are a relatively new phenomenon in education in Scotland and as such are an addition to the work-related purposes of education. Teachers and policy makers must be clear about the changing nature of work and economic activity. They must recognise the nature of entrepreneurial pursuit in contemporary forms of work within a global knowledge economy and prepare and support young people in making informed life choices about how they can relate to and engage with entrepreneurial activity in their economic, social and personal activities.

Chapter 10 – Education and Work: Policy, Purposes and Practice.

Reading a wide range of literature and research on factors connecting education and work in the conduct of this thesis has led me into exploring the work of writers in philosophy, sociology, political science and economics beyond what I have previously studied and has significantly broadened my awareness of social science in relation to understanding of education. My belief in the undoubtedly crucial role that preparing for work, and emphasising skills and knowledge that will be advantageous for work, plays in developing individuals and supporting societies, has been reaffirmed. In particular I have come to think more deeply about the purposes of education in a broader sense within which work-related purposes are encompassed. I have developed a conviction that the complex and fascinating genealogy of work-related learning should be seen within a wider context of the advancement of education that supports the development of fulfilled and purposeful human beings who can contribute effectively to the common good in the form of stable, successful, economically viable societies. This provides invaluable insight to me as a teacher educator and educational researcher.

Having explored various education and work related factors in the foregoing chapters it is clear that work, throughout its development, has affected education in terms of economic, social and political demands and continues its influence, with arguably stronger insistence, in the present day. In recent times, due to the influence of neo-liberal policies, globalisation and the emergence of the knowledge driven economy, education has assumed an even greater significance in relation to work. I will argue that we now require to consider education in a more proactive way in relation to work and, while recognising the requirements for workers to have access to knowledge and skills, education workers such as teachers and teacher educators should be able to provide learners with wider benefits from education. Educators should be aware of and able to actively explore with students an ethical approach to the development, not only of the worker and potential economic contributor to society, but of the human person.

10.1 Issues Arising from Reading and Research

10.1.1 Historical Perspectives on Work and Education

Tracing the historical evolution of the concept of work, changes in the role of vocational education and various influences from industrial society has revealed a picture of education reacting to and evolving as a result of social, economic and political developments over time. From toiling purely to satisfy basic needs to labouring to satisfy wants engendered by consumerist pressures, the psychological, social and economic complexities of work have grown. Education has followed a parallel path from providing the necessary skills and wherewithal for society to reproduce itself to economically driven demands for education in order to fulfil roles in a society where knowledge has become a highly desired, sought after and 'marketable' commodity. Scotland's progression from an agrarian to an industrial economy supported by a particularly enterprising and inventive spirit and founded upon its enlightenment educational heritage and entrepreneurial trading acumen, built its reputation for industrial excellence.

The development of specifically work-related education, in the form of vocational education, has been subject to changing conceptions of the overall meanings and purposes of education and shifting emphasis among these conceptions and has been in constant competition, perhaps unnecessarily, with liberal education. Christopher Winch (2000) proposes that:

> All education is vocational in a *thin* sense: preparation for life is preparation for following a particular conception of the good, that is, a calling to a particular way of life. (Winch, 2000: 28)

In Scotland, there have been several attempts to provide meaningful vocational education, from post war policy documents, up to more recent curriculum initiatives, as discussed in Chapter 4. The rhetoric has been well meaning and clearly concerned for the best interests of individuals and the Scottish economy. In practice, however, vocational courses have continued to struggle to gain recognition and respect on a par with those that carry the weight of academic status and tradition.

It is clear from examinations of changes brought about by historical evolution of work and development in perceptions of the human relationship with work that political, social and economic factors, along with the impact of science, have been interrelated and instrumental in shaping these changes. Education has responded to these transformations in work and the developments traced in vocational education reflect the impact of these same factors. This relationship between educational thinking and initiatives and changes in society is perhaps at its most obvious in study of the historical evolution of the industrial society. Work before the advent of industrial society had for many families meant the maintaining of cottage industries such as weaving. Whole families participated in this work when looms were set up in homes and even the youngest children contributed. When factories became commonplace children were still used, often to carry out dangerous and dirty jobs such as going up chimneys or crawling under weaving machines, because they were small enough to fit. These practices continued into the early twentieth Century. The pace of social, political and economic change accelerated rapidly in the industrial era and it is the first period of serious attempts to provide education for all, with politicians, spurred by socio-economic and political change, looking, albeit guardedly, at the nature of education and the benefits that it was judged to offer for the common good and the prosperity of the nation. I use the adverb 'guardedly' because it was taking a risk for politicians, from educated classes themselves, to have more of the population educated, enfranchised and in a position to potentially overturn long established traditions of social and political influence and even governance. To leave the masses ignorant however could have provoked social turmoil and perhaps even revolution as had been happening elsewhere. In the industrial economy it is economics and the economy that have shaped the organisation of work and society has reflected these effects. Indeed some early state run schools were organised on factory principles using the monitorial system. The relationship of the economy, society and education appears clear and relatively uncomplicated by today's standards. In the late industrial economy, schools were founded and formed within an era of concern for social policy and developing educational practice raised questions about social equality and justice as instanced by the Beveridge Report and, particularly in Britain, the rise of the Welfare State (see Chapter 3).

Figure 15

Figure 15 – Children working at Coltness Iron Works, 1900 – 1910. Photograph courtesy of Motherwell Heritage Centre.

By contrast in the postindustrial economy there are significant political and social changes to be observed and the relationship of education to society and the economy requires to be theorised differently. People needed more skills and schools were no longer merely an aspect of social policies that in themselves had changed. The welfare policies of the late industrial society had supported the population by providing for their needs whether or not they were in dire straits. The New Right policies of the nineteen eighties set out to reduce dependency by making workers responsible for addressing their own welfare needs and breaking up social networks of support. The Blair years of New Labour continued this, albeit in a less severe

form, through Third Way policies that allowed for new forms of welfare while maintaining the central emphasis on work and seeking justice and fairness in society (see Chapter 5). Education, as witnessed in the Prime Minister of the time Tony Blair's now famous mantra, became the central plank of economic policy. Explorations of the developments in the role and nature of work in post-industrial society indicate radical change in its character and environment. Scientific and technological advances, particularly in information technology, altered the actual practices of work and the nature of what was required to be produced by work became more varied and in many cases less tangible. Production line manufacturing that had provided work for so many began to shrink and service sector jobs increased along with employment relating to new technologies that were to bring about what we now refer to as the knowledge economy. Education continued to respond to the needs of society by attempting to provide broader experience for all, introducing up to date subjects, supported by technology in classrooms, and recognising that everyone required a general education whatever their occupation or work-related status. In practice, however, education struggled to provide appropriate learning experiences and continued trying to address society's needs and meet political and economic demands from a mainly static and very traditional position. The subject centred basic structure of the curriculum has been unchanged for more than a century with innovations in content and process bolted on to the existing framework. New curriculum initiatives in Scotland are attempting to address this stasis in curriculum design and have commissioned a review of the fairly new idea of curriculum architecture. (see below)

It is important that policy makers, while scanning ahead for the human capital needs of school education, also keep in mind the historical roots and development of the knowledge economy and the knowledge society as is discussed in Chapter 7. Michael Peters (2000) warns of the consequences of ignoring this thus:

> . . . often what occurs is the predominance of an economic definition of knowledge that then serves to construct education policies, without careful thought of other approaches or the criticisms they might generate. Even in terms of the limited approach of economics of knowledge . . . {education policy} documents do not tend to recognise knowledge as a global public good. (Peters, 2000: 13)

Education policy development and research must continue to take account of the discourse of the knowledge economy (Peters, 1999). Research must look to some critical issues to support the development of policy, in M A Peters' words, in relation to: empirical, conceptual and historical relations between 'knowledge', 'economy' and 'education'; national and local effects of global trends in order to meet the demands for education in appropriately updated forms; devising new strategies and approaches to take account of rapidly changing communication and information technologies; lifelong learning and inclusive education as bases for social cohesion, individual and collective welfare and personal and national identity and: recognising the ideological and philosophical depth and relevance within new policy. (ibid, 1999)

Teachers cannot afford to be complacent and assume that schools either don't need to, or are already doing enough to, provide young people with relevant skills, knowledge and dispositions to enable them to compete efficiently and effectively in a world that is intensely economically competitive. It is important to educate young people to be prepared for the political, economic and social contexts in which they find themselves located and within which they will need to operate. They will need to be aware of and able to practise the 'neoliberal virtues' of choice, individuality, self-reliance and enterprise, at the same time as recognising responsibilities for collaborative efforts in public service, i.e. the 'social democratic virtues' of community, fraternity and equality.

10.1.2 Philosophical Thinking on Education and Work

The case is therefore made that efforts to understand the nature and purposes of work, its significance for individuals and the role that education has in supporting individuals in developing their identity and relationship with work are studies that require philosophical exploration. Reflecting on this range of value-laden aspects requires a greater effort to think about why and how education, work and society are related and whether they may potentially present areas of conflict. Several such areas have emerged in the reading and thinking for this thesis. A major influence on the development of attitudes to work in

western societies and the social stratification that seems inextricably linked with work has been that of religious example and teaching, particularly the views espoused by Christian churches. Theological treatments of work can be traced from the earliest influences of organised religion on the nature of human activity that sought to persuade workers that their self-realisation and spiritual identity should be found in their labours (Ranft, 2006). The history of work (see Chapter 2) shows that there has long been religious thinking about work, at least for as long as there have been written or oral traditions. M D Chenu (1963) claims in his eponymous text that a particular 'theology of work' was only forming in the early Twentieth Century as a late response to Marxist and Fascist anthropological positions whereas Patricia Ranft (2006) writes of formal work theology being in existence from before the Middle Ages. The compulsion of a religious myth that everyone in society should work and that work is a 'good thing' is present in ancient times with distinctions developing in levels among the more or less acceptable, and between the cerebral and manual, tasks required of different occupations. In medieval times religious ideology had a strong influence on work and the shared spiritual heritage of both Jews and Christians sanctioned work as a means of earning one's living, citing the Old Testament God working as Creator. The Christian Gospels continued this teaching with references to work and the example of Christ himself working as a humble carpenter, trained by his father. The main pre-Reformation Christian imperative to work is related to that religion's major directive of overcoming the burden of Original Sin and ultimately gaining salvation. The various orders of Christian monks counted work as part of their religious observance, particularly the later orders that were less aesthetic or not focussed solely on contemplation. Religious attitudes to work altered with the emergence of the protestant churches that were built on the teachings of reformers such as Martin Luther and John Calvin among others. Luther disparaged profit making but saw secular work as equivalent in status to spiritual work, believed that everyone was called by God to work and emphasised the creativity of every kind of work, shunning the commonly held theological assumption that the Catholic Church's call to work is made in order to pay a penalty for Original Sin; an ideology of salvation. Luther saw the religious significance of human work arising from his belief in our having been put here by God to continue the work

of creation through our actions performed in our various stations in life: our vocation or calling (Hardy, 1990: 48). Thus we are neither behaving as animals when we toil, as in Western classical views, nor are we elevating ourselves to god-like status, as was held by some medieval religious communities. Rather, in Luther's view, we are working as God's human representatives on earth "as cultivators and stewards of the good gifts of his creation" (ibid). All stations in life and all tasks of work were therefore considered of equal worth and thus Luther moved away from the two-tiered medieval view of spirituality and work. Hardy (1999:50) argues that Luther also "initiated a long and rich line of Protestant reflection upon the place of work in human life". Calvin agreed with Luther on the religious dignity of work and set the notion of a calling and a work ethic forward as his branch of protestant belief spread firstly in Europe and later very widely in the New World. For Calvinists "it is not so much serving God within the station one finds oneself {in} as it is serving God by one's station" (Hardy, 1999: 67).

10.1.3 'homo œconomicus' and Catholic Theology

> Work is a good thing for man – a good thing for his humanity – because through work man not only transforms nature, adapting it to his own needs, but he also achieves fulfilment as a human being and indeed in a sense becomes "more a human being" (John Paul II, 1981: §9: 33)

In the midst of industrial society, Karl Marx's views on man's relationship with work and emphasis on the defining role of labour in man's self-realisation (Chapter 3) had placed him firmly outside of traditional Jewish and Christian views and marked a clear divide between socialist thought on work and that of traditional Christian teaching. In response, the Catholic Church made comment on social and work-related issues in 1891 in an Encyclical Letter of Pope Leo XIII entitled *Rerum Novarum* (New Things) (Leo XIII, 1910) that represented the Catholic Church's efforts at coming to terms with the social, political and economic impact of industrial society. (An encyclical is a papal document in the form of a pastoral letter written by the Pope for the whole Roman Catholic Church on matters of doctrine, morals or discipline.)

Rerum Novarum was prompted by the Church's concern for the "Condition of the Working Classes" (p 7). Leo XIII recognised the social and economic upheaval of the times that were causing tension and a growing possibility of worker revolt. The unequal division of society into a relatively small class that enjoyed many of the advantages of modern living and the multitude of workers struggling to escape from dire poverty was recognised. For the rich to use charity alone to pay some due to the unfortunate masses and for the poor to rebel and pin some hope on the possibilities of revolution to reverse the social order were both criticised as unsatisfactory states of affairs. Insufficient wages, inhuman working conditions and hardship to "health, morality and religious faith" were leading to tendencies to subscribe to "extremist theories far worse in their effects than the evils they purported to remedy" (John XXIII, 1963: 10). The Church was concerned about the rise of extreme socialism and the moral implications of shifts to social remedies, based on Communist principles, that could arise from the dissatisfaction of the working classes with their lot in society. Work was not to be regarded as merely a commodity but as a specifically human activity and since it was the main means of livelihood for most people it had to be remunerated according to just and equitable arrangements and not made to depend on the state of the market that could from time to time leave many workers vulnerable to poverty and even destitution. Private ownership of property including the goods of production was accepted as a natural right which the State should not hinder but brought with it responsibility to society. The State in turn had a duty to be involved with and promote economic matters for the common good but was duty bound to protect all of its citizens and particularly the weaker members of society. The Church clearly is supportive of capitalism and uneasy about the influence of the more extreme forms of socialism and their apparent appeal to the allegiances of the working class.

On the ninetieth anniversary of *Rerum Novarum*, a post-industrial follow up was produced entitled *Laborem Exercens* (On Human Work) (John Paul II, 1981). This later document was written by Karol Wojtyla, who as well as being leader of the Catholic Church (Pope John Paul II) was also a highly regarded philosopher of the human person. The Document sets out

the Church's view of the world of work and economic activity with similar emphases on workers' rights and responsibilities to those of *Rerum Novarum,* and proceeds to propose a very particular phenomenology centred on the dignity and value of the human person. Wojtyla, who had himself experienced hard labour and the constraints of a Communist regime while studying in secret in his native Poland, became Professor of Social Ethics at Lublin in 1956 (Charles, 2003:152). He thus was intimately familiar with socialist and Marxist positions on work. The anthropologies of different systems such as Marxism and the writings of Karol Wojtyla (John Paul II) would make interesting comparisons and are commented upon by John McNerney in his examinations of Wojtyla's writings entitled *John Paul II: Poet and Philosopher* (McNerney, 2004).

> If Marx and Engels were responsible for the *Communist Manifesto,* I deem Karol Wojtyla to be accountable for what I would term a corresponding *Manifesto of the Human Person.* (McNerney, 2004: 121)

McNerney describes *Laborem Exercens* as "a very personal account of the moral nature of work" that concerns " the concrete human person in the dimension of work". The Encyclical doesn't disagree with Marx's economic analysis of workers' conditions and the problems of alienation but goes further to prompt examination of the ways in which humans relate to each other in even the worst of dehumanising circumstances and bemoans the lack of participation of the individual human person in capitalism as well as in Marxism. Rodger Charles highlights this aspect of Wojtyla's writing in *Laborem Exercens* thus:

> Work is objective, its end product is important and as such it is valued in different ways, but whatever honest work a man does however humble, gives him human dignity which demands respect. (Charles, 2003: 155)

Behind both of these papers, *Rerum Novarum* and *Laborem Exercens,* as Weber would freely have admitted, there is a wide values basis taken for understanding the human person. Given this, it is possible to argue that there are different ways of looking at the human person and to note that the values basis, in terms of human wellbeing, seems to be receiving ever-diminishing attention.

10.1.4 Secular Theology of Work

It could be argued that the six authors selected for Chapter 3 (Marx, Weber and Arendt) and Chapter 5 (Rifkin, Gorz and Giddens) provide a sort of 'theology' of work as defined in the sense that each approaches the nature of work as a socially and culturally constituted category with an essentially moral foundation. I refer to theology here in parenthesis because by derivation it implies a religious theory and as such a theology of work would explore the spiritual significance of work in defining human beings as we have seen above. Even in an increasingly secular and postmodern world, however, there are still fundamental questions being raised about who we are as human beings who want to live virtuous and rewarding lives full of satisfaction. As oxymoronic as it seems, there is significant literature to support the notion of a secular theology, where secular is taken as referring to "a *saeculum,* or a shared world of human experience." (Crockett, 2001:1) and indeed the destructive application of contemporary philosophy to theological discourse, at the hands of theoreticians such as Lyotard, Kristeva and Foucault, has caused some rethinking of what we might mean by theology in attempts to arrive at a better understanding of the post-modern condition (Winquist 2001: 26). A rationale for an Economic Theology is put forward by Robert H Nelson (2003) when he points out economic and religious parallels between economic deprivation and dire poverty and evil in the world and between the fulfilment of economic progress in resolving resource scarcities and a state of heaven on earth. As indicated in the comparison of the above mentioned two groups of writers in Chapter 5, the three 'modernists' investigated work as an aspect of the human condition and the three 'post-industrialists' recognised the importance of work both to a person's identity and to the common good for a just society. All six put work into a moral category that ultimately depends on values such as creativity and self-realisation with shifting emphasis on these values leading to evolving questions of identity and self-transformation. The question of a new kind of theology becomes important as the industrial, postindustrial and indeed postmodern contexts of the six writers lead us to the knowledge economy where without a values based analysis, education can become instrumental or symbolic.

In examining the development of global interconnectedness in societies, politics and economics in Chapters 6 and 7 we have seen the rise in importance of knowledge and the intensification of dependence on education to provide access to required knowledge and support development in the skilled application and use of knowledge. The language used to signify these developments is often that of 'new industrial revolutions' and 'systems of innovation' that concentrate on the technical and scientific application of knowledge to new economic practices and concerns. Here again it could be argued that moral considerations have been dropped out of the debate. While it is clear that education must be proactive in providing opportunities and the wherewithal for learners to participate effectively in the knowledge economy it should do so having regard to the moral implications of promoting what could become instrumental or even anti-social practices in the advance of knowledge and take ethical and values dimensions into account. Policy makers need to be socially and morally intelligent when promoting change in support of the knowledge economy both at national government level and at school policy level.

> Subsuming knowledge-based economy or, rather, knowledge society discourse (and policy) within the interests and imperatives of a technocratic elite is . . . short sighted, exclusionary and undemocratic. (Rooney & McKenna, 2005:318)

10.2 Economic Purposes v Liberal/Personal Development Purposes

It is argued that education should be organised in the public interest, for the 'public good' and principally for the development of the human person, so it is interesting that Christopher Winch has made a case for the primacy of economic purposes of education and their taking in of other more general purposes as indicated in Chapter 1. It would be helpful if educators were aware of these arguments. One of the stated aims of this thesis was to examine the work related purposes of education and in this regard to explore Christopher Winch's contention that the economic purposes of education can operate as a possible universal set of aims within which all of the other aims can be contained as subsets. Winch contends that economic aims are capable of encompassing and sustaining other aims for education. The links between education and work as explored in the various chapters of the thesis seem to

show that this approach is possible if the universal set of purposes to be addressed is influenced by a prime imperative to develop the human person as *homo oeconomicus,* a position that can be taken in contemporary education policy by means of an acceptance of the requirements of education for the development of free market economic imperatives. But the taking of this position may be as a result of what Terri Seddon (1997) describes as being 'caught by the discourse' and Bottery (2000) as a form of 'discourse capture':

> . . . the economic imperative dominates much thinking and . . . becomes a form of 'discourse capture' where radically different conceptual agendas such as those of education are reinterpreted through its language and values. (Bottery, 2000:8, quoted in Bell & Stevenson, 2006:42)

The shifts in emphasis to acceptance of neoliberal and post-Fordist requirements of education as 'the way things are' is redolent of Joseph Stiglitz's use of the term 'mission creep' to describe the stealthy changes in purpose and policy direction of the IMF in its dealings with newly industrialised nations. Setting economic purposes of education as the main framework relegates the development of human capital and perhaps also the more Americanised notion of social capital as subsets. These terms for human development however do not inherently allow for broad issues of concern for the development of the human person. If, as identified in explorations of global economic markets, the gap between the small proportion of economically innovative actors and the growing mass of dependent, low-waged, low-skilled or unemployable workers is widening to the extent reported by for example the OECD (1996b), then positioning economic purposes as the universal set for education policy is not working. An alternative scenario would be to place prime emphasis on the development of the human person as the overarching purpose of education and to support the development of homo oeconomicus, the enterprising self and the entrepreneurial self as subsets of this more person centred universal set.

10.2.1 Some Curricular Issues

In broad terms the framework of the curriculum has not changed radically since the early days of compulsory schooling and indeed structures are recognisable that can be traced back even

further. There is perhaps less emphasis placed and rigour applied in some areas such as grammar or the classics and some new subjects such as Information and Communications Technology have been attached to the curriculum as technological progress has made necessary. It is the persistence of traditional curricular structures that has allowed out-moded styles of, and attitudes to, teaching to endure and this remains a major site of controversy in education. E.g. the OECD uses rank orders of countries' positions in tables. In the post-industrial economy, however, developing technology has changed social, political and economic parameters so that a knowledge economy is now the most influential context for living and learning. As with changes in the industrial era, education has also responded to post-industrial imperatives by working out policy and practice to add new areas to the curriculum to correspond with societal changes.

Both the scale of, and rate of, societal change has been immense in the late years of the Twentieth Century and continues to accelerate unabated. Exponential increase in the importance of knowledge as a commodity and its impact on economies and societies, as well as global influences on nation states, raises questions about economic advancement and international competitiveness. At the same time democratic principles are seen to be under threat globally from terrorism and the uncertainty that has arisen since the 9/11 attacks and locally from breakdowns in communities as witnessed in concerns about anti-social behaviour, intercultural intolerance and political apathy. It is within this developing scenario that we have seen enterprise education, citizenship education and more recently education to encourage creativity being introduced into curricula and actively promoted. These aspects of study, in some cases being regarded as extra subjects, are being added to curricula in the hope of equipping young people with appropriate skills, knowledge and attitudes to enable them to cope with making their way in our ever-more complex society. As well as supporting individuals in defining their own roles it is crucial for nations to produce new generations of citizens who can facilitate economic success and greater social cohesion in locally situated but globally connected communities.

These new aspects of the curriculum, of which enterprise education is the longest established, are being catered for in most democratic nations. Treating them as additional to existing curricula however is unlikely to make them successful in achieving the aims that justify their inclusion. As additions, they will be seen as lower status and less important. Where they are given cross-curricular or embedded locations they are less likely to be given the whole-hearted commitment of teachers. What is needed is a structural reorganisation of curricula to make enterprise education, along with citizenship education and creativity, more central to the purposes of education so that the traditional subjects support them appropriately and when more contextually relevant. As already mentioned in this chapter, however, I do not envisage enterprise education or citizenship education as the primary purposes of education but rather as major pillars of support for an education that provides for economic, cultural and social success and more importantly develops the broader intellectual, moral and values-based capacity for self-realisation of the human person.

As previously stated, the broad aims of the new curriculum in Scotland are to support young people in becoming successful learners, confident individuals, responsible citizens and effective contributors. This will require the expertise of teachers who can deal with such broad aims across curricular areas regardless of their subject specialism and will make all teachers responsible for embedding cross-curricular themes. The work-related purposes of the curriculum, specified within enterprise education, but in effect present in all curricular areas, will need to be addressed by all teachers. There is a danger that we assume that aspects of the curriculum are embedded without being sure that teachers have the necessary background and awareness to be able to devise contexts for learning that do actually give sufficient emphasis to the required outcomes. Embedded aspects such as enterprise education, entrepreneurship education and education for work can be expected to be better understood and more creatively managed by teachers who have some background of economic awareness (see Chapter 9). The same could also be argued for ethical and values education.

A Curriculum for Excellence is in fact an attempt to introduce a values-based curriculum to Scottish school education. It is significant that this is being stressed as an underlying principle of the new curriculum. The values selected to underpin the new curriculum are listed as wisdom, justice, compassion and integrity, the words that are inscribed on the ceremonial mace of the Scottish Parliament and chosen because they are said to represent defining vales of Scottish society.

> One of the prime purposes of education is to make our young people aware of the values on which Scottish society is based and so help them to establish their own stances on matters of social justice and personal and collective responsibility. Young people therefore need to learn about and develop these values. The curriculum is an important means through which this personal development should be encouraged. (SEED, 2004)

The capacities chosen to convey the purposes of the new curriculum however are anodyne, very broadly expressed and unlikely to be helpful to teachers in their current format. Aspects of the values involved should be made much more specific both to assist the groups writing up the requirements of the curriculum to keep in mind their value-driven purposes and in order to assist teachers in making ethical and values-based decisions about the detail of the curriculum. Young people will have to make, and have to learn to make, ethical decisions about how they will conduct themselves and how they will prepare for their futures as productive and respected members of society. A curriculum for excellence is at the forefront of curriculum development and ahead of many other countries in searching for more ethical ways of designing curricula. It is now apparent that performance measurement of teaching and learning is not a sound basis for curriculum development. Ticking boxes and comparing targets is technicist and lacking an ethical perspective on human development. For some years now Scottish schools have been steeped in self-evaluation using performance indicators following the guidance of *How Good is Our School: Self Evaluation Using Performance Indicators* (SCCC, 1996; LTS, 2005). There is also a follow-up document specifically for education/industry links entitled *How Good is Our School at Education Industry Links? : Self Evaluation Using Performance Indicators* (SCCC & SOEID, 1997). (Performance Indicators were renamed Quality Indicators in the 2005 revised edition of HGIOS.) (See also Chapter 8,

page 200). This was a positive step on the road to partnership between external inspection with imposed benchmarks and self-evaluation that has certainly given teachers more involvement in making judgements about the quality of school organisation and classroom teaching. It is not enough, however, now that many school pupils are experiencing international education and becoming aware of global issues such as world poverty and environmental unsustainability. These young people are coming up against and having to make personal and social decisions about the global implications of their lifestyles, outlooks and career choices and they need help and clear direction from teachers in exploring the values issues that underpin these areas. This is where we should be going with discussions about work related curriculum matters. Work and economic activity should be presented to young people within the contexts of involvement in local, national and international possibilities.

10.3 Education and Work: A Values-based Approach

10.3.1 Implications for Schools and Course Design

Schools in Scotland currently are developing courses that are designed to address work-related aspects of the curriculum through vocational and enterprise education but that take account of the global nature of economic activity and the interconnectedness of areas of the curriculum that should be treated as a whole. Teachers require to be prepared to deal with citizenship education, enterprise education and vocational education in creative ways using contexts that provide realistic experience but also combine to support the knowledge and skills needs of pupils. Where citizenship is a separate subject it draws on disciplines such as social subjects and religious and moral education in dedicated timetable sessions, delivered by specialist teachers. In Scotland it is the reverse in that citizenship education is located across the curriculum and within all curricular areas, and by implication, all teachers should contribute to addressing the requirements of studying citizenship education. Enterprise education is similarly treated as a cross-curricular aspect and as such the concern of all teachers. But local policy makers and education authorities who decide respectively what is included in the curriculum and how it will be resourced in schools, don't ask big questions about value-based

approaches to the curriculum. It is left to teachers themselves to have insight into the broader purposes of their activities and to design contexts for learning that allow pupils to develop their personal identities as global citizens. Evidence that teachers take this responsibility seriously can be found in the many school enterprise education programmes that place firm emphasis on social and civic enterprise as described in Chapter 8 and in the many international projects in which pupils are engaged. Many such initiatives started as a result of religious education programme campaigns to develop links with underdeveloped countries and thereby experience global citizenship in action. Such projects bring heightened understanding of cultural and social diversity and provide opportunities to give practical support to young people in other, often underdeveloped countries. Pupils can experience at first hand the implications of their own economic and social actions and the effects of national and international trade and employment policies. All of these experiences can influence the choices that young people will make about their career paths and about how they will conduct themselves as consumers and economically active members of society.

Teachers of work-related education should therefore pay attention to values and moral behaviour in issues that young people are likely to have to deal with in their working lives because the workplace is potentially an area of values conflict. Pupils need to be values literate to be able to question, for example, the honesty or safety of operation of their working environment and to be able to recognise and challenge such matters from a secure understanding of their own identities and ideas. It is important that pupils recognise the pressure under which companies operate in our complex economic world in order to compete and survive and be aware of ethical dimensions in their dealings with their employees, their customers and their competitors. Stephen Bigger (2000: 133) suggests that the building blocks for dealing with business ethics can be established in the characters of young people during school education and can support them in their future careers by enabling them to influence policy and strategy in their places of work.

10.3.2 Implications for Teacher Education

In each of the chapters above dealing with the range of aspects of education and work and factors that influence their interrelationship, it is clear that teachers have a massive responsibility to their pupils. They have to be clear themselves about what they are teaching and why, and it has already been established that it is difficult for teachers to do so without background understanding of the work related issues with which young people will have to engage. Familiarity with available resources is not enough. Conviction about the benefits to pupils of work related education is crucial. I also argue in this thesis that understanding of the developments that have taken place in the nature of work and the shifts in education's response to work related education would be invaluable. Teachers are of course key players in this, as is the work of teacher educators. The wherewithal for acquiring this knowledge as teachers, exploring how to use it to support pupils and to inform and sustain their own teaching, is a responsibility of teacher education and is a good example to illustrate the importance of offering 'education' for student teachers, as is the case in Scotland, rather than merely 'training' such as is offered elsewhere and in some cases provides less theoretical or professional enquiry. It is through engaging with the historical, philosophical, cultural and economic questions underpinning work related education that we can prepare teachers to provide realistic and informed contexts for their pupils' learning. This is true whether it is vocational education, enterprise education or indeed any aspect of the curriculum, for all learning is part of the development of the human person that teachers should recognise in each of their pupils.

In a thesis that has examined relationships between education and work it is appropriate to consider the role that teachers themselves have as workers. It is one of many careers that require specialised training and in Scotland only graduates can take up teaching posts. Teaching can be viewed as a job that brings financial remuneration, it can be seen as a career path that offers increasing responsibility, for some it is a vocation and it is generally referred to as a profession. It can be all or some of these things to different people. The nature of teachers' work is complex and throws up some ideological contradictions not least of which is

the debate about whether the job of teaching can indeed be considered a profession. On the one hand the relocation of teacher education into universities strengthens claims to professionalism by situating research and study into the theory and practice of teaching firmly within the academic and intellectual traditions of higher education, as has traditionally been the case with other professions such as medicine or the law. The effects on teachers, however, of neoliberal and neoconservative policies of accountability, and controls that demand the kinds of performativity that encourage technicist approaches being applied to school practice have, at the same time, been bringing about a deprofessionalising of the status and work of teachers. There has in recent years been some government effort to reduce these effects for Scottish teachers who have had a professional body in the shape of The General Teaching Council for Scotland (GTCS) for more than forty years. The Council provides guidelines for the recruitment of new teachers, accredits education programmes for student teachers and takes responsibility for the overseeing of teachers' conduct as well as influence over the demands made of teachers in the carrying out of their practice. Nevertheless, it falls to teacher educators to devise strategies for developing new and appropriate programmes to support the development of new kinds of professionalism and professional identities for teachers and student teachers to enable them to understand their roles in their own self-realisation and in recognising the educational needs of young people. (Sachs, 2003; Carr, 2000)

10.3.3 Implications for Policy Making

Education policy makers require awareness of the rapidly changing nature of work and of social and economic conditions to devise policy that is relevant and provides useful direction for teachers and young people. In the UK generally, and with Scotland in recent years in the lead as opposed to following, albeit in a more measured fashion than was previously the case, there has been some drawing back from policy designed to establish control of what is taught in schools, excessive emphasis on testing and raising achievement and overly prescriptive curricula. Although it was cautiously introduced as Education for Work (see Chapter 8) and there is evidence that teachers treated it with some suspicion, enterprise education in Scotland

could now be embraced more whole-heartedly with the introduction of A Curriculum for Excellence (ACfE). Even the current encouragement in *Determined to Succeed* towards entrepreneurial activity (see Chapter 9) can be envisaged if it is placed in better balance, in an informed manner, within a value-based structure for the whole curriculum. Policy makers need to acquaint themselves with relevant reading and research and make this available for teachers and indeed all who have an interest in and concern for the curriculum when promoting new curricular initiatives and approaches. I have commented on this lack of supporting background in the past (Fagan, 2002) in relation to education for work documentation and am pleased to notice that the Learning and Teaching Scotland (LTS) website for ACfE lists reference to useful background reading and research that has been considered and is influencing developments across curricular areas.

Processes of curriculum design and reform are now being referred to by some as curriculum architecture following the publication of Hawkins and Graham's (1994) work on the subject, which their publishers' blurb at the time called a 'current "hot potato" of curriculum reform'. Curriculum architecture seeks to inform the planning of curriculum structures taking account of necessary basic components but also considering factors that might present design limitations or challenges. The Scottish Executive Education Department has been sufficiently interested in the idea to commission a review that has been undertaken by a team from Strathclyde University (Boyd et al, 2007). The literature reviewed and the recommendations made by the review team stress the importance of appropriate structural issues but also that curriculum aims should be reflected in the actual pedagogies adopted in classrooms. Several important areas of decision making for the Scottish context are highlighted including approaches to vocational and enterprise education. There is no comment made, however, either in the review itself, or in the literature that it reviews, about the need to take account of global influences, the challenges of teaching and learning in a knowledge economy and the ethical issues that these and many other aspects of the curriculum present. These aims appear elsewhere in ACfE documentation but interestingly not in this important curriculum design advice to policy makers. The reviewers have concentrated on practical considerations

but I suggest that the notion of curriculum architecture should encompass every kind of limitation or challenge, practical or theoretical, and to include overarching values issues.

Ethics and Public Policy has for some time now been taken seriously by many universities with centres and departments being set up in response to concerns about perceived crises in global and national and even local affairs. They are, however, mainly situated in departments such as Law, Government, Medicine, Philosophy, Health Care and Public Administration (see for example St Andrews' University's Centre for Public Policy under the direction of Professor Haldane) where both public and private organisations are showing new willingness to engage with questions of professional ethics, corporate responsibility and environmental sustainability. Education faculties and departments could play an important role in such groups and in so doing highlight for schools, from a university perspective, the importance of ethical considerations to educational policy and planning. Policy makers in education could usefully follow the lead of universities in this, especially in their international connections, and bring ethical dimensions of planning more to the fore.

Policy makers who are politicians use and refer to values based approaches it seems, but what they offer is largely unexamined by the public or by teachers in schools. There is a particularly Scottish values based notion of thrift and of a work ethic that is referred to repeatedly and it is interesting that, in seeking justification for economic policy, our former Chancellor of the Exchequer and new Prime Minister's background as a 'son of the manse' is regularly noted when his allegedly values-driven pronouncements are made, suggesting that there is an expectation that his policy decision making will be grounded in Presbyterian values and ethical considerations. (The term is often used in Scotland for anyone whose father was a Minister of the Church of Scotland.)

As the employers and first line managers of teachers in schools, local council education authorities oversee the development and dissemination of policy that is often formulated at national level. Much of the professional development that takes place is through providing

courses for teachers on in-service days and some support for teachers to attend centralised courses run by the councils themselves, by universities or private organisations. When asked to take on board some new set of policy directives, it can be difficult for teachers to appreciate what is being proposed and to see how they can adapt for changes in their classrooms. They need plenty of time to become familiar with what is being proposed and to feel that they agree that initiatives are worthwhile and bring benefits to learners. They need to have access to some of the thinking behind proposals in order to build up sufficient understanding. Without this kind of background awareness of contexts and purposes it is very unlikely that teachers can feel sufficient commitment to new initiatives and if they are compelled to introduce them anyway, may do so with little enthusiasm or success. It should be a priority for in-service providers to give teachers sufficient time and information to understand why policy is being introduced. *Determined to Succeed* has, from its beginnings, been formulated, financed and disseminated by the Scottish Executive Education Department (SEED). Direct government funding, augmented by financial support from Scottish Entrepreneurs (see chapters 8 and 9), has been available to provide for the launch of the Document and to support teachers in taking up the challenges that it sets out for enterprise and entrepreneurial learning. Much of the work done has been welcomed and appreciated by teachers, and it has indeed stimulated a great deal of impressive activity in schools, but most of it seems to concentrate on resources and sharing of good practice. There is little effort made to support teachers in broader professional understanding of the work-related purposes of education, in explaining the contexts for and implications of promoting enterprise education or in recognising the considerable ethical and values-steeped dimensions of supporting young people's decision making for their future lives and careers. The issues that have been investigated in the chapters of this thesis are not generally made available to teachers in support of their professional development and I believe that opportunities should be provided for them to acquaint themselves with the social, political, economic and ethical issues that surround the work-related purposes of education.

I have argued that the work-related purposes of education are best addressed within wider purposes of developing the human person and also advocate that teachers' professional identity, and personal definition as workers, is best located within the same ideological position: that of individual teachers' self realisation and actualisation of their own identity and their influence and indeed responsibility to work towards the greatest development of the human person that is each one of their pupils. As teachers and teacher educators we need to know what we are part of so that we can decide how to conduct ourselves.

The reading and analysis undertaken for this thesis indicate several areas that should be addressed in teacher education programmes to provide student teachers with a basis for understanding the work-related purposes of school education, encourage them to build background understanding of the issues and enable them to plan their teaching to provide relevant contexts for their pupils learning. Continuous professional development is now both an expectation of, and entitlement for, serving teachers in Scotland and the complex issues surrounding work-related education could be addressed in modules within masters and doctoral programmes within faculties of education. Undertaking the reading, research and thinking necessary to write this thesis has provided me with considerable wherewithal which I can now disseminate in new modules for both teacher education and CPD programmes. The reading and research conducted have provided me with insights into the aspects of work-related education questioned in the introduction. More questions have been raised however than have been answered and the aspects analysed in each of the chapters provide rich seams for further analysis and research at post-doctoral level

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