

Future of Education with Work and Life Balance

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ABSTRACT

Skills are frequently advocated as a panacea for economic and convivial ills, and anticipation. Transmuting adeptness needs is visually perceived as playing a key role in ascertaining inculcation and training distribute the right skills. Albeit mechanistic “manpower planning” of edification and training systems from the top down is not a practical possibility in free market economies systematic efforts to peer into the future can avail both policy makers and individuals to make better appraised culls. There are sizably voluminous uncertainties, but many trends and patterns are robust. Edification is not just about preparing people for work but withal about transmuting the path of economic development. Decisions about edification by both policy makers and individuals will influence how the future will unfold.

Keywords: *Education, Work and Life Balance*

This paper considers how systematic anticipation of transmuting adeptness needs can be used to guide the decisions of individuals and policy makers about edification. It is argued that labor market information and perspicacity (LMII) can be visually perceived as a ‘public good’ which can avail people make well appraised decisions and culls. Systematic efforts to explore the future, utilizing both quantitative and more qualitative techniques (such as scenario development methods), can avail both inculcation and training providers and individuals to make better appraised culls and decisions. It considers how far current “futures” and forecasting methods can be habituated to engender such information. It explores the implicative insinuations of current cerebrating about prospects in the labor market for inculcation policy and individuals making vocation culls. The discussion in the paper draws upon the work the author undertook as a component of the “Beyond Current Horizons” project (Wilson, 2009) which involved an extensive review of research on the links between work and edification and the prospects for both over the coming decenniums. Section 2 highlights the sundry links between inculcation and the world of work. Section 3 poses the question of whether it is possible to engender utilizable assessments of future skills needs. It is argued that, albeit the future is inherently capricious, and nothing is certain, systematic endeavors to peer into the future can avail to guide decisions about inculcation, both at an individual and institutional level. It reviews the sundry methods available for engendering such LMII, considering their strengths and impuissance. Such information can avail people to make better culls about edification and work. Section 4 provides a concise summary of what recent projections and other research must verbally express about how the

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nature of work and employment may change. Section 5 then explores what this might mean for inculcation in the first quarter of the 21st century.

Section 6 concludes the paper. It argues that more accentuation should be placed on celebrating reflectively and systematically about possible labor market futures and that more effort needs to be placed on amending the information and exhortation available to puerile people to avail them make good decisions. The inculcation system needs to find better ways to enable adolescents.

People to access and make sense of this information, bearing in mind all the caveats about its reliability.

Work and education at the beginning of the 21st century

The overall aim of inculcation is to impart erudition and understanding. A key rationale for this is to avail people to participate in the economy and society, and to make the most of the opportunities they face, maximizing their potential. (For some other perspectives on the overall aims and purposes of edification optically discern Egan (2010) or Fielding and Moss (2010).)

The fundamental posits underlying this paper is that individuals have free will and can make culls about inculcation and other matters that have consequences for their own and others' futures. The future is not predetermined but depends on the sum of many millions of such culls and decisions. Nobody can prognosticate precisely how the future will unfold. It is possible to culminate up in many different places, depending on the culls made by individuals and other organizations, including the State. Culls and decisions have consequences. The future is dubious, but individuals and others can take steps to ascertain that their strategies are as robust as possible, whatever future they may face, maximizing flexibility and adaptability. But to do this they require robust information about the world they are liable to face and how this is transmuting. There are of course many links between work, employment, and edification. Much recent socio-economic discourse (e.g. Wilson & Hogarth, 2007) has emphasized the role of edification (and training) in: preparing individuals for the world of work; opening up of opportunity; and facilitating gregarious mobility. Initial edification is a key factor in determining skills – but it is not the only factor, perennial learning (LLL) is withal crucial (Unwin, 2008a).

Work has many different denouements. There is no single generally acceded definition, either in general parlance or amongst different academic disciplines. Economics generally fixates on work as something to be eschewed (as opposed to leisure, optically discern Bosworth, Dawkins, and Stromback, 1996). Other disciplines highlight the links between work and identity (Overall (2010) poses the general rhetorical question of whether people “work to live” or “live to work”). Powd Thavee (2007) and Scott and Dex (2009) highlight that positive aspects of work (income and self-esteem) are key elements in salubrity.

There is an incrementing apperception amongst economists that jubilance and wellbeing are not just about maximizing GDP (e.g. Layard, 2006; Oswald, 1997).

Nevertheless, paid work in the formal economy remains the major activity occupying most people's waking hours. It is withal the prime source of income, as well as representing one of the main ways that most people identify who they are. Participation in the formal

economy is liable to remain crucial for most people living in developed economies for the immediate future.

Edification needs to prepare puerile people and others for the world of work they are liable to face, but it can withal avail individuals to play a parting designing and shaping the future, especially through the role of research and development (R&D), innovation and entrepreneurial activities, which can often be visually perceived as a joint product of edification (especially at the highest level); visually perceive Bosworth (2008a) for further discussion. Inculcation consequently has a key role to play in facing consequential challenges such as an senescent society, climate change, sustainable economic development, and inequality. It can do this both passively (apprising and preparing people to meet them) and proactively (utilizing edification, R&D, etc., to address and resolve them).

CAN THE FUTURE DEMAND FOR SKILLS BE PREDICTED?

Rationale

All developed countries face quandaries in matching the supply of people emerging from their edifying and training systems with the transmuting demands for skills from employers. Such mismatches are becoming an ecumenical quandary for both policy makers and individuals keen to ascertain those investments in edification and training bear fruit (Cedefop, 2010b). Skills anticipation or forecasting is visually perceived as a component of the solution to such quandaries. Regimes have invested considerable resources in peering into the future to anticipate what this denotes for edification. Many different methods have been deployed. What are the edifications from these efforts and what can they edify us about the future, and in particular what are the implicative insinuations for edification.

Approaches to skills forecasting

Since the pioneering work of the US Bureau of Labor Statistics (BLS) over 50 years ago, regimes in most developed economies have recognized the desideratum for customary and systematic assessments of labor market prospects and skills projections at national level. This is despite frequent criticisms of the activity (optically discern Wilson (2008) for review). There are many possible approaches to anticipating transmuting adeptness needs and implicative insinuations for edification and training. As well as the quantitative modelling of the kind advocated by the BLS this includes a range of methods such as Scenario Development, Horizon Scanning, Foresight, and many more. For a recent review optically discern the sundry papers presented at the ETF event in Turin, March 2012, where the techniques considered included Foresight, Horizon Scanning, Delphi methods, as well as quantitative modelling (European Training Substratum, 2012). Bell (1996) argued that many standard research methods (surveys, statistical and econometric analysis, participant observation, focus groups, etc.) can be habituated to peer into the future. An immensely colossal range of implements encompassing both quantitative and qualitative methods is ergo now available to the analyst. Each has advantages and disadvantages.

Together, and in cumulation, these methods can avail understanding of past, present and possible futures. They can provide insights into factual is paramount, as well as perceptions and postures about the future. Wilson (2008) provides a detailed review of the different methods (for other reviews optically discern Allison and Kaye (2005), Bell (2003), Bishop, Hines, and Collins (2007) and the European Commission Joint Research Centre (2010)). In terms of providing detailed labor market information to a wide range of users, “best practice” ecumenical involves quantitative model predicated methods. These are often complemented by more qualitative methods, especially where data for building quantitative

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models are inadequate. Quantitative projections are generally predicated on the utilization of astronomically immense scale, multi-sectoral models to engender a comprehensive overview of how structural economic and technological changes are affecting the injunctive authorization for skills. Developments in the labor market are visually perceived as dependent on the economy, especially the transmuted demands for different goods and accommodations, and how technological change influences the ways these are engendered and distributed. Computers have revolutionized the facility of analysts to develop more intricate models, as well as facilitating the accumulation, access, analysis, and dissemination of more detailed data, mostly provided by the State and its statistical agencies.

Albeit quantitative models can result in a mechanistic approach, they have the great merit of being grounded in authentic data. Other more qualitative methods incline to be less constrained and more notionally theoretical. In scenario development, for example, in which participants are enheartened to cerebrate openly about that range of possible futures they may face, scenarios are optically discerned not so much as outcomes as catalysts for examination and discussion (for a review of such methods visually perceive van Notten (2006)). They can provide insights and denude aforesaid obnubilated relationships that may have far-reaching consequences. These techniques can be applied from the macro level (with high caliber policy makers) to individual vocation culls (with the avail of good counselling). Active involution in the process, whether an individual child making vocation culls or an edification minister deciding on policy and priorities at a macro level, is desirable to get the full value. Quantitative modelling approaches incline to visually perceive the future as a set of keys to be analyzed and projected. A paramount component of much futures work is fixated on providing a normative view of possible alternatives. Trends alone cannot be relied upon since trends ineluctably ‘bend’. Behavioral models endeavor to provide insight into what causes trends to bend, by embedding the models in a theoretical understanding of what drives demeanor and optically canvassed outcomes.

Quantitative models should not be visually perceived as a panacea. Nevertheless, in most of the countries that utilize them they are regarded by policy makers and expert analysts as providing an essential cornerstone in the development of a comprehensive picture and understanding of the labor market. Their utilization is becoming more prevalent, as the availability of data and the capacity for model building ameliorates. Quantitative methods withal include sundry non-model predicated techniques, including.

Surveys of sundry kinds, intended to elicit robust data on matters of fact (current adeptness structures and trends) or opinions and perceptions. There are many different audiences for skills analysis and forecasting, and their desiderata for LMII may be very different. Policy makers are more intrigued with overall supply/demand balances, and the general areas where investment in skills is needed; providers and individuals require more detailed information about prospects in particular areas, course provision and vocation guidance. In many countries much of the work is funded centrally by regime departments or agencies, on the grounds that this is a ‘public good’. Circumscribed resources designate that national projections are often intended to accommodate many different users and purposes. While this cuts costs, it may mean compromises in terms of meeting the concrete desiderata of different users.

Limitations of skills projections

Skills projections have often been criticized, but the “straw man” reprovers set up to assail bear little or no resemblance to the aims, objectives and results that are typically engendered (optically discern Wilson, Woolard, & Lee, 2004). Those engendering such projections recognize that the future cannot be prognosticated with precision or certainty. But all the participants in the labor market make plans, even if these are simply predicated on the default posit that the future will be much the same as the past. The rationale behind projections is that a comprehensive, systematic, consistent, and transparent set of projections can avail to apprise everyone about the world they are liable to face. A key quandary is that politicians and many others frequently demand simple answers regarding the future, preferring the comfort of certainty, often resulting in what Manski (2011) describes as “incredible certitude”. People like something certain to cling to, they turn to religion, as well as science, for answers. Priests, fortune tellers, psychics (as well as professional forecasters of course!) are all consulted for views about the future. Much early skills anticipation/forecasting pandered to the injunctive authorization for “simple answers”, but such mechanistic “manpower planning” approaches have been generally discredited and discarded. Since the pioneering projections by the US Bureau of Labor Statistics (BLS) in the early 1950s there has been a radical reassessment of the faculty of regimes to prognosticate the future and to impose top down, centrally orchestrated, solutions. However, recent events have demonstrated the quandaries of leaving things to the clemency of unfettered markets.

Nobody has a crystal ball revealing precisely what the future labor market will look akin to. However, understanding the current demand for skills and how it arose can avail to reveal what might transpire next. This may be subject to argument and dispute, but there are many areas of broad consensus and acquiescent (as set out below). Many things are very hard to presage (e.g. the precise timings of earthquakes or financial crashes), but there are implements to avail visually examine their consequences. Many labor market trends carry on regardless, despite such catastrophes and calamities. (For more general critiques of the constraints of modelling and forecasting visually perceive Taleb (2007), Pilkey and Pilkey-Jarvis (2007) and Paruolo, Saisana, and Saltelli (2011).) The future is altered by decisions taken today, both at an individual and at a more macro level (by organizations and regimes). Many aspects of the future are well beyond the control of individuals and regimes. Others offer more scope for agency. Where an individual or policy maker visually perceives themselves will vary, depending on the issue and circumstances under consideration, including personal and cognate characteristics. Many labor market trends are quite robust, and it is possible to provide both individuals and policy makers with some utilizable information about the future that they can utilize to make better apprised decisions. Of course, it is consequential to endeavor to differentiate between knowns and unknowns, certainties, and uncertainties.

Quantitative models can:

- Help to make assumptions about the future explicit and transparent.
- Help to enforce systematic and logical thinking.
- Act as a focus for intelligent debate.

But they cannot provide:

- Mechanistic “manpower” planning (precise indications of education and training requirements). Most systems utilized for anticipating or projecting skills change

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around the world recognize the uncertainties. They emphasize that flexibility and adaptability are paramount characteristics to build into such strategies (both individually and at a macro level). Despite a proclivity in some components of regime to micromanage inculcation and training systems from the top down, there is incrementing apperception by both policy makers and analysts that the main role of anticipatory systems is to provide robust LMII to a wider audience, including (peradventure especially) individuals making vocation culls and decisions. The conventional approach characterized by this kind of quantitative modelling is predicated on examination of well-established trends and patterns of demeanor. It emphasizes continuity and the desideratum for inculcation to prepare people for a world in which skills at all levels will be needed to prosper in the labor market. It suggests that, albeit there are many uncertainties and areas of doubt regarding the precise erudition, skills and qualifications needed to function prosperously in the first quarter of the 21st century, some trends are relatively robust and certain. Underlying these trends is a posit of perpetuated innovation, technological and organizational change, and development of the ‘knowledge economy’. Most regimes in developed economies have argued that future employment prospects and economic performance depend upon perpetuated investment in human capital to maintain competitive advantage compared with the expeditiously developing countries of the Far East and elsewhere (visually perceive for example EC policy verbalizations associated with 2020 agenda at: ec.europa.eu/europe2020/index_en.htm). There is incrementing apperception of the paramouncy of R&D and innovation in maintaining economic magnification and competitive performance. While this is linked to inculcation at the highest calibers, there are implicative insinuations for edification more generally the role of those qualified in science, technology, engineering, and mathematics (STEM) subjects. While these are not the only kinds of skills required, a sound STEM substructure is regarded by many as fundamental to perpetuated economic prosperity.

Reprovers such as Brown, Ashton, Lauder, and Tholen (2008) argue that globalization undermines the comfortable view that developed economies can retain and expand on the numbers of high caliber jobs associated with the erudition economy. They paint a much more pessimistic view and stress that the benefits of the erudition economy may be inhibited to just a minute proportion of the workforce. Others emphasize radical skeptically, highlighting the possibilities for both utopian and dystopian visions, which could have very different implicative insinuations for inculcation. For example, Pink (2005) argues that a third revolution is now imminent. The first (industrial) revolution swapped fields for factories, while the second (information) revolution superseded brawn with encephala. Pink suggests that the third revolution will involve a shift from ‘left’ to ‘right- brain’ economic engenderment. The ‘left brain’ is mainly associated with logical thinking. This is an area that computers are apposite to deal with. Developments in ICT such as verbalization apperception, GPS systems, and the cyber world, are making it possible to accumulate, analyze and apply information automatically, so that systems can supersede people in many areas of accommodation work, as well as in manufacturing.

Systems can be designed to deal with routine enquiries, make bookings, and to provide standardized professional exhortation. Expert systems are becoming increasingly feasible, with the very best cognizance and practical experience about how to do most things available on-line. In contrast, ‘right brain’ activity is associated with more ingenious cerebrating that cannot be so facilely replicated by computers. Simple extrapolations

predicated on technological determinism, and the erroneous conception of a fine-tuned “lump of work”, have resulted in many ingenuous projections of the impact of technology on employment in the past. Krugman (2003) characterizes “The lump of work (or labour, or jobs) fallacy” as the conception that there is only a fine-tuned quantity of work to be done in the world, so any incrementation in the amount each worker can engender truncates the number of available jobs. He cites admonitions in the 1950s that automation would lead to mass unemployment as an example. In the 1970s, for example, doomsters soothsaid the collapse of employment and the paperless office. Both prognostications were far wide of the mark. Technology has the capacity to make some jobs redundant or obsolete, but it is not inevitably ineluctable that employment as a whole is minimized. In principle, there is no circumscription to the number of serviceable things for people to do, whatever their skills. Whether these engender viable incomes depends upon the market. Initial prognostications of the impact of ICT were for mass unemployment (Jenkins & Sherman, 1979). More considered analysis, recognizing the consequentiality of market adjustments, came to less pessimistic conclusions, albeit recognizing the negative aspects for those directly affected (Whitley & Wilson, 1987).

The authenticity is that neither of these extremes applies macrocosmically: some trends will perpetuate but others will bend dramatically. Developments over the next decennium or two will indubitably have profound implicative insinuations for employment and the world of work, but the perils of simple extrapolation, taking no account of convivial and economic demeanor and the power of markets to adjust to incipient circumstances, are conspicuous.

What do current projections and other research reveal about the changing demand for skills in the first quarter of the 21st century?

1. Key drivers of change:

There is a consensus that there are three main drivers of transmutation in the structure of employment and the pattern of demand for skills: technological change; globalization; and demographics (optically discern, for example, Karoly & Panis, 2004; Wilson & Hogarth, 2007). Transmutations in employment patterns largely reflect long-term trends driven by these three factors, mitigated by economic considerations. In cumulation they have resulted in shifts in patterns of ordinariness for different goods and accommodations from consumer and other sources as incomes have ascended.

Recent technological change has been dominated by the impact of information and communications technologies (ICT), albeit other technologies are becoming of equal or more preponderant import (optically discern Cliff, O'Malley, and Taylor (2008) for a review). ICT has revolutionized the way business is done, engendered incipient markets and offered the possibilities for people to exert much more control over their working lives. The pace of change seems liable to perpetuate if not expedite. But just because something is possible do not believe that it will transpire. Baldry (2008) emphasizes outcomes are shaped by convivial and economic considerations and constraints.

Technology is withal affecting the boundaries between work in the formal as opposed to informal economies, as well as driving other sociological and cognate changes such as individualization and household restructuring (Liddle & Lerais, 2007). Castronova (2005), Heeks (2008), and others have additionally highlighted the potential of virtual worlds and the cyber world for engendering value in the genuine world. Another of the impacts of ICT has been its potential for transmuting the location of work (Green, 2009). Many pundits have prognosticated the cessation of conventional work patterns, emphasizing the scope for

remote working and telecommuting. In fact, change has been much less dramatic and expeditious. Felstead (2008) and Taylor (2004a, 2004b) provide a more considered assessment of the prospects for the future. Incipient technology will additionally have paramount implicative insinuations for the edifying process itself and its distribution (ways of learning; plagiarism (a growing quandary for assessment); where learning takes place; etc.). There will be a perpetuating need for innovation and to find ways of making inculcation germane to puerile people and the transmuting authoritative ordinances of work and society.

Globalization can be visually perceived as an outcome of technological change, mitigated by economic and other factors, but many consider it as a separate driver. Friedman (2005) argues that it has dramatic implicative insinuations for the world of work. Minimized convey and communication costs open the possibility of outsourcing to capitalize on significantly lower costs for labor and other factors of engenderment. Ameliorations in communications affect the distribution of work on an ecumenical scale. There is no certainty about where work will be done and by whom. Increasingly there is a single ecumenical market for everything, including people. Capital, people, and jobs are increasingly mobile and less constrained by national boundaries. Friedman argues the world is now “flat”; a caliber playing field for everyone to compete on. Demographics is the other main driver. The most paramount vicissitude in terms of work and employment in most developed economies is the gradual increase in the average age of the population (Bosworth, 2008b). Casey (2003) examines the transmuting trajectory of working lives resulting from this, fixating on what will be the impact of a senescent workforce and longer working lives. This has implicative insinuations both for the structure of ordinariness dictation for goods and accommodations in the future, and for other issues linked to a senescent society.

2. Structural change and the demand for skills

Two recent sets of projections fixate on longer term trends to 2020 at a UK and pan-European level. The UK Working Futures projections and Cedefop pan-European projections follow international best practice as described above (optically discern Cedefop, 2008, 2010, 2010a; Wilson & Homenidou, 2012a, 2012b; Wilson, 2012). These both rely on the utilization of detailed quantitative multi-sectoral macroeconomic models. They suggest that the long-term shift in employment from the primary sector (especially agriculture) and traditional manufacturing industries towards accommodations and the cognizance-intensive economy will perpetuate. However, it is other accommodations that will provide the main source of incipient jobs (albeit there are some exceptions such as Eastern European countries which benefit from inward investment in manufacturing because of lower labor costs). By 2020, 3/4 all of jobs in the EU are expected to be in accommodation. Private accommodations are projected to visually perceive consequential employment magnification, while non-marketed accommodations (which include inculcation and health) are expected to be impacted by tight public finances.

Business and sundry accommodations are projected to optically discern the most refulgent prospects, with the potential for magnification in jobs in areas such as general business accommodations remaining vigorous, as well as in childcare and gregarious care.

The projected sectoral changes have a direct impact on the pattern of ordinariness dictation for vocations and qualifications, as well as other aspects of skills (variously referred to as key, core, or generic skills, such as literacy, communication skills, etc.). There have been numerous endeavors to define and quantify these other aspects of adeptness, some of which

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are as much personal characteristics as competences that can be edified and acquired (visually perceive Green (2008b) for details). This is being reinforced by transmutations in the patterns of employment (skills demands) within sectors, driven by technological change and transmutes in how work is organized, and jobs are performed. The results suggest that there is liable to be a “polarization” of skills demand. Ascending demand for highly adroit workers in higher caliber vocations, typically requiring higher caliber qualifications (i.e., at degree level) plus sundry types of generic skills, will occur simultaneously with a trend towards a growing number of lower-level jobs especially in accommodations. Magnification is projected for many jobs requiring no or lower calibers of skills (e.g., elementary vocations in areas such as hotels and restaurants). This has been linked to technological change (especially ICT) and cognate organizational changes. These have incremented the productivity of many medium adept workers, machines now doing routine and prognostic able work (both manual and nonmanual). Incipient technologies are less prosperous in superseding labor skills where the work involves discretion and replication to human interventions, even in work typically done by low adroit workers. There are many tasks that cannot currently be undertaken by machines or computers. Consequently, the injunctive authorization for low adroit workers is liable to remain for some time to come. However, the picture is quite involute and polarization is not a uniform phenomenon, visually perceive Stehrer and Ward (2008).

In additament to focusing on transmutations in overall occupational employment levels (soi-disant ‘expansion’ demands), it is additionally paramount to consider supersession demand. This includes an assessment of the ordinant dictations arising as people leave the workforce for retirement (or other reasons). Supersession needs are vigorously positive, and generally outweigh by far “expansion demands” (which for many industries and vocations are negative). Virtually 40% of those employed in Europe are now in higher-level jobs (e.g., management, professional work, or technical jobs that typically require a university degree as an ingresson requisite). This portion is projected to ascend further, reflecting the perpetuated magnification of the erudition and information economy. However, whether trends in favor of the highly eligible reflect demand rather than supply, and whether they are sustainable are sultrily debated issues. Brown et al. (2008) and Brown, Lauder, and Ashton (2011) fear that the transmuting features of modern capitalism betoken that future patterns may be less benign, with businesses and capital being much less tied to locations and less prepared to accept long term. responsibilities to their workforces in an incipient “flat world”. This could result in a much less expeditious increase of ordinant dictation for graduates than Leitch (2006) and others suggest, raising concerns about ‘over-education’ (or at least “over qualification”).

Others suggest that there is still vigorous evidence that the workforce in many developed economies remains under-edified (optically discern Carnevale & Rose, 2011).

It is ostensible that obtaining high caliber qualifications still engenders a sizably voluminous advantage in terms of obtaining and retaining employment and the rates of pay received (Wilson & Hogarth, 2007). Such qualifications provide flexibility and adaptability, both individually and societally, highlighting how edification can be availed for individuals prepare for probable changes, as well as the uncertainties. Leitch (2006) highlights the consequentiality of rudimentary skills (especially literacy and numeracy). A consequential proportion of the UK workforce lacks the rudimental literacy needed to function in a modern economy. The desideratum for such skills is additionally projected to ascend (both in terms of the numbers and proportions of jobs where such skills will be regarded as essential, as

well as in terms of the breadth of such rudimentary skills). Literacy needs to be defined more broadly than oral and indited communication utilizing conventional media (optically discern Jewitt (2009) for further discussion). The consequentiality of generic skills associated with such higher qualifications is withal incrementing. Many of the jobs in the sectors projected to expand place a much more preponderant accentuation on dealing with people rather than ‘‘data’’ or ‘‘things’’ (visually perceive Dickerson & Wilson, 2012). Green (2008b) suggests that communication skills, quandary solving skills, team working and ICT skills, are increasingly valued in modern economies and labor markets. This has clear implicative insinuations for edification, if adolescent people are to be equipped with the types of skills, they will require to prosper in the labor market of the mid-21st century. This is now a well-recognized and a highly visible feature of mainstream curricula in the developed world.

Some implications for education

1. Key trends in the world of work and employment

Much change is in prospect in the world of work, employment, and edification. But equipollent there is often gargantuan inertia to be overcome. The world will indubitably look very different by 2025, but many elements will be familiar and akin to today. Many employment trends have vigorous implicative insinuations for edification, for inculcation providers and for inculcative policy makers. Continuity is just as paramount as change.

Many of the radical transmutations in ways of working and employment patterns that have been identified in recent research may well take place, but they will remain of relatively minor paramountcy in quantitative terms – ‘‘9–5’’ work in the formal economy is liable to remain the norm for most. The media inclines to fixate on the more dramatic and extreme possibilities rather than a sober assessment of what may genuinely transpire. Antecedent extrapolations predicated on technological determinism have often been way off the mark. Many of the more extreme technological extrapolations will indubitably suffer the same fate. Skills possessed will remain a key factor in employment prospects, etc. Inculcation will additionally perpetuate to have a key role to play in availing people to understand society and the economy (and their role in it). This will include placing more preponderant accentuation on convivial values, and availing people to gain a broader understanding of what makes for jubilation and celebrity. The consequentiality of reliable and robust labor market information and perspicacity, and sound and impartial vocations guidance and exhortation, is liable to ascend.

2. Needs of the formal economy

The general role of formal qualifications is liable to perpetuate to ascend, driven by both supply and injunctively authorize side pressures, albeit Brown et al. (2008) question whether the projected incremented demand for high caliber skills and formal qualifications will benefit more than a few. If their more pessimistic scenarios prevail, then (for many) work may mean less autonomy, less time to celebrate, inequity, stress, and cognate noetic health issues. There is liable to be a distinction between the desiderata linked to the ecumenical economy and those more fixated on meeting the demands from domestic and local customers. The consequentiality of STEM subjects may withal increase, albeit the cadre of people needed who are eligible at the highest level will probably remain minute. However, these will require to be of the highest quality to compete internationally.

The transmuted patterns of jobs will require variants of skills and erudition: A desideratum for general management and other professional skills.

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The consequentiality of a range of generic skills, including communications, team-working, quandary solving, leadership, management, business, and entrepreneurial skills, is withal liable to grow.

There will withal be a perpetuated desideratum for many lower adroit jobs. Inculcation can avail individuals to develop an authentic understanding of their position in the world of work. This is in part about recognizing the consequentiality of lower adept jobs, as well as highly adept ones. It is additionally about potentiating individuals, availing them to learn to capitalize on the opportunities they face and to avail convivial mobility. The aim of many educators is to avail individuals challenge and transmute their position, inculcation is additionally about opening alternative futures. Quantitative employment projections focus primarily on paid employment in the formal market economy. Scott and Dex (2009) and Williams and Round (2007) consider trends in both paid and unpaid work, Scott and Dex (2009) focusing more concretely on the place of work within the family. Key trends in paid work, home-working and unpaid work, are linked to vicissitudes in convivial benefits as well as transmuting general postures to work, and the loss of deference in society. This has implicative insinuations for schools and more general inculcative implicative insinuations. The trends in informal work are not pellucid cut. On the one hand the paramountcy of the formal economy is in many ways growing, with women taking an increasingly consequential role (labor market participation rates amongst those of prime age (25–55) are ascending significantly). Employment rates for both males and females have additionally ascended steadily in recent years inspired by the State, on the grounds that this is the best way to ascertain convivial inclusion. On the other hand, informal activity remains very paramount for most people, and in many veneration technological change is availing to inspire such activity, while some transmutations in gregarious values (repudiation of materialism, concerns about the environment, etc.) are withal inspiring people to repudiate market/capitalist solutions.

3. Priorities for education

The review of the evidence in Wilson (2009) emphasized the paramountcy of:

- The rudiments (literacy and numeracy) – the keys to learning to learn.
- Skills in the utilization of the cyber world and ICT.
- Perennial learning, much of which may be informal or conducted in the workplace. the incrementing consequentiality of “DIY” or self-directed learning.
- “Just in time learning” (e.g., probing for information and cognizance in the cyber world). Diversity (including the effects of transmuting demographics, which will have some consequential implicative insinuations, with groups (older people, ethnic minorities) imposing special demands on the system).
- Convivial omission, inequality, and concerns about constrained gregarious mobility remain areas of key concern.
- As the science fiction inscriber Gibson put it: “The future is already here, it’s just unevenly distributed”.
- One of the key roles of edification is to avail address these concerns.

This raises many questions and issues:

- How to ascertain scholastic opportunity for everyone throughout their lives (especially the convivially disadvantaged, vulnerably susceptible and those least able to habituate), providing them with the skills they require to find and retain a decent job.

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- How to identify and abstract barriers to prosperity for disadvantaged groups.
- How to identify the skills people will require, including exhortation and guidance to avail them make the right culls.
- How can inculcation be habituated to potentiate individuals and ascertain that inculcation and cognate activities will avail to shape the future in a way that benefits society holistically?

There are additionally a few other cognate issues, including:

- The stresses and burdens placed on edifiers and lecturers by administrative overload and accentuation on quantification and monitoring, their status and pay.
- Transmutations in the possible locations for both work and learning; and the many ways that edification can be distributed.
- There are many implicative insinuations for: Regime (especially departments responsible for edification and training); employers; and individuals. It is imperative that there is a broader apperception of the role of inculcation as preparation for work for all those in the population, not just at the top of the academic facility range.

For employers a more pellucid view is needed of what the role of work should be in a lifetime of learning and how this is liable to transmute. They withal need to articulate more limpidly how the authoritative ordinances for skills are liable to transmute. Conclusively, for individuals more avail needs to be given to children (in particular) so that more of them have a better understanding of the role that edification plays in their future life paths, and especially their prospects of securing and maintaining gainful employment. An inordinate quantity of still do not optically discern the pertinence and meaning of inculcation, and there are some components of the country where whole localities efficaciously “drop out” and disengage, leading to vicious circles of deprivation. Good quality LMII can avail vocations advisors to provide adolescent people with an authentic appreciation of the world they are liable to face and how edification and training can avail them to shape their own futures to meet these challenges.

Brown (2008) and Wolf (2011) argue that for many individuals the benefits of formal qualifications are controvertible, and the value of a conventional academically focused curriculum dubious. This has consequential implicative insinuations for inculcation.

And training policy makers. Brown (2008) and Unwin (2008) both argue that a case can be made that inculcation is currently too “front loaded”, with an extravagant amount of accentuation being placed on initial inculcation (age 5–21). There is a desideratum to develop incipient mechanisms for spreading the accentuation more evenly over a lifetime, with rights to sabbaticals, etc., as people have longer and less prognostic able working lives. This raises paramount questions about how the present institutional framework and systems could best habituate. There are, of course, often paramount quandaries in designing incipient systems, especially incentives (which often have unintended consequences). There are withal many paramount considerations from the perspective of the individual, if a lifetime of learning is to be achieved, not least the question of finance. Keep (2012) argues that there are a few crucial switch and transition points in individuals’ lives (from school to work; from one job to another; job and employment shifts linked to family formation; and the peregrinate from work to retirement, etc.). These are often traumatic. More thought needs to be given by policy makers to what the State can do to facilitate these transitions; including financial entitlements to sanction investment by the individual at later points in the life cycle

(but noting the many precedent quandaries with voucher type schemes). All this raises doubts about whether the current “factory based” models (schools/colleges), providing edification and training immensely colossal numbers concurrently, are the right ones. It additionally raises practical questions about what the State can do to avail individuals “follow their dream”. The business advisors’ model is not very practical; but NIACE have recently suggested the desideratum for a conventional “learning” health check.³ There is some evidence that, when done well, personal advisors can avail (as in the now defunct UK Connections initiative, visually perceive Bimrose (2008)).

CONCLUDING REMARKS

It has been argued in this paper that criticisms of endeavors to anticipate future skills needs have often been misplaced; the need to peer into the future is ineluctable foreordained. The only genuine question is how to go about it: systematically, explicitly, and centrally; or to leave everyone to make up their own minds. The case for treating LMII as a “public good” to be provided by the State has been generally accepted, but the priority affixed to it remains too low. This is not a call to orchestrate the edifying system from the top down to meet the desiderata of the market. It is about apprising individuals and policy makers about the possible worlds they may face so that they can make robust calls and decisions. It is not simply a case of the edification system gratifying the desiderata of the economy. Links between inculcation, skills and the economy run in both directions. Calls made by individuals and policy makers will avail to determine the future path for individual vocations and for the economy. Areas such as investment in STEM subjects are probably critical here. The future will probably optically discern a polarization in the injunctive authorization for skills in the formal economy, with magnification in job opportunities at both terminuses of the skills spectrum. Many of the structural changes affecting the economy and labor market are quite robust and liable to result in a continuation of well-established trends. This can avail to guide cogitating future skills needs. However, there are additionally many uncertainties. This suggests a desideratum for flexibility and adaptability, and the paramountcy of “learning to learn”. It additionally highlights the desideratum for good quality and well appraised vocations guidance targeted at the individual. Albeit there is much fixate on initial edification and training, the desideratum for LLL and CVET is liable to become even more paramount. Edification is additionally not just about preparation for work in the formal economy but about many other aspects of life, including work in the informal economy and a gamut of cultural and gregarious aspects. Scenario development and other foresight techniques, applied both at an individual as well as macro level, will be needed to ascertain strategies adopted and calls are as robust as possible to the uncertainties being faced. But such techniques need to be predicated on a sound substructure of hard-nosed statistical information about the current situation and perpetual trends. In part, this a call for perpetuated investment in LMI, covering both the current situation, as well as the possible futures people may face. But it is withal a plea for more preponderant accentuation on availing people to make sense of this information by fortifying students (in particular) with felicitous vocations guidance and exhortation that recognizes the open nature of the situation most of them face.

Modern technology betokens that it is increasingly facile to engender and distribute ever more detailed LMI. But more additionally needs to be done to convert all this information into serviceable astuteness that can authentically apprise and guide the decisions and calls being made. This requires support for individual students to avail them to understand the opportunities they face and what they require to do to take them.

REFERENCES

- Bosworth, D. L. (2008a). *Determinants of enterprise*. Manchester: Manchester University Press.
- Bosworth, D. L. (2008b). *An ageing population: the challenges facing the UK. Contribution to skills in England*. Coventry: Learning and Skills Council.
- Bosworth, D. L., Dawkins, P. J., & Stromback, T. (1996). *The economics of the labour market*.
- Cedefop. (2010b). *The skill matching challenge: Analysing skill mismatch and policy implications*. Luxembourg: Publications Office of the European Union.
- Future of work commentary series: Publication two. London: ESRC.
- Unwin, L. (2008). *Connecting workplace learning and VET to lifelong learning*. Harlow: Longman.
- Brown, A. (2008). *Developing expertise—moving beyond a focus on workplace competence, assessment, and qualifications*. Coventry: Institute for Employment.
- Jewitt, C. (2009). *Knowledge, creativity and communication (challenge lead), Beyond Current Horizons Program, Department of Children, Schools and Families Future Programme*. Available at: www.beyondcurrenthorizons.org.uk/.
- Krugman, P. (2003). *Lumps of Labor*. *The New York Times* 10.7.03.
- London: Government Office for Science Foresight. www.foresight.gov.uk/.
- London: Institute of Education.
- Unwin, L. (2008a). *Learning at work: Opportunities and barriers. State-of-science review: SR-A2 contribution to the UK Government's Foresight Project, Mental Capital and Well-being: making the most of ourselves in the 21st Century*.
- Taylor, R. (2004b). *The future of work-life balance, an ESRC future of work programme seminar series*.

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Conflict of Interest

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