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Visioning 2035: The future of the higher education sector in the UK

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ABSTRACT

The concept of 'university' has been around for centuries and yet the majority of British Universities have yet to reach their 50th birthday. The higher education sector has been through extensive change over a relatively short period of time and this is likely to continue in the future. This paper presents the results of a futures study focussed on the Higher Education sector in the UK in 10 and 25 years time. Following an extensive, broad ranging literature review covering business, education, futures, and socio-political texts and studies, a series of scenarios were developed for the future of the sector as a whole. This study differs from other studies in its field as it does not focus on individual institutions, but rather at the environmental factors that are going to impact on the sector, setting out a range of scenarios within which institutions will need to shape their individual futures. Five scenarios are presented in this paper with their underlying driving factors, and their implications for the academic workforce being employed in the sector.

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1. Introduction

The Higher Education Funding Council in England is the body which allocates Government funding within the Higher Education sector in the UK. It has recently gone through a range of exercises to consider the future of the Higher Education (HE) sector to inform Government policy, and also to inform and direct its future investment in the sector. Much of the work undertaken as part of the study has focussed on the perspective of individual Higher Education Institutions (HEIs), that is, the universities and other providers [1,2], but the study reported in this paper looked at the future of the sector as a whole, and thus ignored what are likely to be individual institutional factors of choice.

2. Challenging assumptions underpinning the scenarios

Some key areas which are dominating the individual institutional agenda were ignored in the development of these scenarios as they address the sector as a whole. The first of these was the issue of globalisation and international students.

The issue of overseas students is well covered in the literature, as is the discussion of the form that internationalisation strategies ought to take [3]. Some universities are setting up campuses overseas, although these are largely staffed by host nation citizens and they are few in number. While these endeavours may continue, they are unlikely to impact significantly on the shape of HE in the UK in 25 years time, other than to offer secondment and international research opportunities.

Most of the focus in the literature is around the issue of international students coming to the UK to study and the desire for institutions to increase their international profile [4,5] as more players enter the field from the European Union (EU) and

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within the host nations. When this is coupled with the evidence that international students may not have a particularly good experience in the UK [6], it is difficult to see this market expanding in its current form and indeed it is more likely to contract.

In global terms studying in one's home state is the optimum solution. It is more efficient for students to study at home and as more of the developing world engages in HE and develops its own sector – currently the pattern is for this to happen through private enterprises such as Petronas University in Malaysia – the role for the developed world is one of capacity building and supporting the establishment of the sector, rather than attracting the top tranche of overseas students [7].

In 25 years time, international students will be fewer in number and will have little impact on the nature of UK HE. In 10 years time, there are likely still to be people specifically employed to leverage the international market, but their role will be changing from one of recruitment to one of establishing collaborations for mutual benefit. The whole international/global debate is not significant to the formation of any particular scenario for the future as it is not a key factor that will be determining the shape of the sector in 25 years time but will rather be played out in the next 5–10 years.

The second issue which was considered not to be a significant factor for the sector in this study is that of demographic trends and non-traditional students. The UK government is continually focussing on up-skilling the workforce, setting targets for skills at level 3 and 4 and expanding the sector to give people the opportunity to go to university who previously chose not to. It is estimated that approximately 15% of the population are eligible to go to university and have not done so [8]. Many of these 15% will be working in what we might refer to as the 'new professions'. These are occupations that have now become graduate professions rather than work-based qualification routes, such as the subjects allied to health, much of the children's workforce, nursing and paramedics to name but a few. Those already employed in these professions are unlikely to return to University to obtain a qualification that they have already obtained by a different route, even though it is not titled as a degree.

We now have approximately 50% of the school leaving population attending Higher or Further Education (FE). The numbers of those qualified to attend who are choosing not to attend is in decline. Hence the population of potential 'non-traditional' students will decline year on year as a greater percentage of the younger population continue in education. The potential non-traditional student population is likely to have financial commitments and family commitments that will make the prospect of study no more attractive than it did when they chose not to study in the first place [9–11]. As the number of non-traditional students increases, the potential future pool diminishes further and in 25 years time this is not going to be a sustainable market for institutions to be targeting, although some individual institutions may have some success here within the 10 year time frame.

We also have a shrinking population of young people [12], but are likely to have an increase in migrant workers employed in the unskilled service sector, so their children may balance the numbers [13]. The aging population might offer a potential new market in education for the third age.

The overall picture, however, is not going to be one that drastically shapes the HE sector. There will be some fluctuations in numbers and while these may impact differently on individual institutions depending on their situations and contexts, this issue is not going to be one that shapes the future direction of the sector overall.

The third issue that is dominating the institutional agenda which is not considered significant for the future of the sector is that of digitalisation and the use of Information and Communication Technology (ICT) in teaching and learning. There is much debate and discussion in the literature about the role of ICT and e-learning in HE [14–16]. The appearance of the University of Phoenix as an online, no campus university provision is the extreme of a digital university, while the traditional delivery of lectures and tutorials at Oxford and Cambridge is the other extreme.

While some institutions may take niche positions at one end of the extreme or the other, for the majority of the sector this is not going to be an issue that significantly determines their future, nor their future workforce. All institutions will be delivering using blended learning methodologies in 25 years time. Students, while being highly digitally literate, are still likely to benefit from some attendance (whatever form this may take) and are still likely to want to attend in some form if only to discuss their work with other students [17].

Therefore, while the whole debate around digitilisation will impact on the sector in terms of the skills needs of the workforce, it is not going to be a significant factor in shaping the sector as a whole. Digitilisation is therefore taken as a given—regardless of the scenario, all higher education institutions (HEIs) will be using ICT to support their learning and teaching provision and indeed their research provision.

Finally, there is the issue of democratisation and the role of the media. Unlike the previous three issues, this issue is raised in recognition of a gap or silence in the literature. The role of education in contributing to democracy has largely been ignored in the HE futures literature. Much is written about the role of education in schools [18–20] and indeed the UK school curriculum now includes citizenship education. While the liberal ideal behind HE might once have been founded on education for democracy, the economic and global agendas have dominated in recent times and arguably commodification and modularisation has detracted from this goal. It is taken as an assumption in this study that extent to which HE contributes to the promotion of democracy is not a core driver shaping the future of the sector.

The role of the media in shaping the sector in many ways is more significant. There is very little evidence to be found in the literature or in government policy documents to support the use of league tables and yet they are compiled and published regularly by the media [21]. The manipulation of the media will be the factor that influences the future shape of the sector, be it by government, key players, lobbyists or other interested parties. The media is also taken as a feature in these scenarios that will be reactive to the situation rather than proactively bringing about change. The role of the media is likely to be strongest in the final scenario presented, but this will be fuelled by the interest groups at the time, rather than as an initiative

in its own right. Therefore the media is taken to be a tool that might be used within the scenarios rather than a driver behind any of the scenarios. We therefore anticipate this issue continuing to be 'silent' as a sector driver in the next 25 years.

3. Methodology

How does one research the future? The very notion of researching the future is a paradox [22]. The word research lies within the time boundaries of the past and the present so to research the future appears a logical impossibility. When researching the future, no one method is appropriate in isolation. Quantitative forecasting, extrapolation and time series have proven useful where there are raw numerical data to work with, such as demographic trends. However given the nature of 'the future' itself, such raw quantitative analysis needs contextualising and interpreting in light of the assumptive constructs. In this particular study, the key elements that were examined in order to gain a fuller picture of the future HE sector were demographics, economics, social and political trends, educational context, business process analysis and futures studies relating to the worlds of work and education.

Economic analysis focussed on current analysis investigating economic indicators most closely related to engagement with higher education and those dependent upon outcomes of higher education. Demographic analysis outlined the population eligible to attend higher education in 2018 has already been born and hence relatively reliable extrapolations can be made of demographic trends for the next 10 years and the implications for the provision of higher education. Social and political analysis highlighted that as the world becomes increasingly globalised and democratised there are a range of social and political issues that could impact the next 10 years in higher education. This analysis included a review of digitalisation and the impact that this is having on the ways in which people live, their expectations, aspirations and means of communication.

Educational analysis gave an underpinning understanding of where higher education has come from and how it has been changing over the last 20 years, as well as trends and ideas that could be extrapolated for a further 10 years. This also included, amongst others, current Government educational initiatives, such as the Leitch Report, the increasing professionalisation agenda within the Children's Workforce, the Bologna agreement with regard to higher education credits, the new 14–19 diploma and the expansion of foundation degrees in the UK. Business process analysis drew on the fields of management and leadership, employee development, change management and wider human resource management models relevant to the future development of the higher education workforce. Finally a review was carried out of futures studies that have been published in any of the above areas relating to higher education or the future of higher education.

Using the review of the literature and studies already carried out in the field and allied to the field, three experts from different backgrounds came together to develop a series of collaborative, multi-perspective visions. This was achieved through using the literature to develop views, images or scenarios of what the HE sector would look like in 25 years time. The basis for developing these scenarios is asking what the world of work will look like in 25 years time, who will the students be, what will be the nature of academic work and what will be the role of Higher Education in 25 years time. The multi-disciplinary team [23] came from different perspectives (one from human resources (HR), one from education policy, one from future studies), each working within the HE sector and hence familiar with the 'where we are now' position [24] and the scenarios stemmed from discussion around discounting the 'obvious influences' and focussing on the underlying features of working in the HE sector: funding, the nature of knowledge and ways of working. This was achieved through collaborative working, challenging each other's assumptions and expertise and drawing on the differentiators that emerged in the conversation. From these scenarios, we then worked back to what the 10 year stepping stone will be to provide a set of 10 and 25 years pictures for the future of the sector. Scenario planning has become a key methodology adopted in futures studies [25] and was selected here as a means of summarizing the results of the futures research as offering a range of alternative images for the sector [26].

Five scenarios were developed as each drew on a unique set of drivers and assumptive circumstances. None of the five emerged as polar opposites and none were developed from the 'business as usual' position which often underpins a futures study, taking forward the situation of 'no change'. We do not see 'no change' as a feasible future for Higher Education in the UK as the status quo cannot be maintained from a funding or an organisational perspective. The first scenario developed focuses on the 'nature of knowledge' and the sector leading knowledge creation; the second focuses on the 'nature of knowledge' and the sector responding to knowledge needs from external stakeholders; the third scenario focuses on the organisation of work and the need for regional collaboration; the fourth scenario focuses on the funding base being reduced by government and the final scenario follows the fourth scenario up to the 10 year mark and then sees a change in policy to renewed government funding to re-establish the sector.

The scenarios were developed for the HE sector and not on an institutional basis. The thinking informing the scenarios was focussed on the sector as a whole rather than institutional issues and hence the key factors that most studies highlight as shaping scenarios for the future were not considered to be the most significant factors in the scenarios presented here. The scenarios will therefore impact on all institutions in the sector, some being more favourable than others to individual institutions as they are currently constructed today.

4. Scenarios

This section outlines a full descriptive narrative of each of the scenarios. The initial scenario narrative outlines the 25 year position, before reflecting the 10 year 'stepping stone' that will highlight key milestones on the way.

4.1. Scenario 1: leading knowledge creation

The key drivers underpinning the development of this scenario stem from the credit crunch resulting in a societal paradigm shift to debt aversion. A widening participation study that was carried out by the research team in the West Midlands in 2009¹ found extreme debt aversion amongst young people and this was a significant factor in their not continuing their education. A word association exercise generated answers around poverty that included family breakdown, suicide, depression, health problems and loneliness. The current credit crunch is now seeing the government encouraging us to borrow more again, but individuals are not taking up the opportunity as unemployment is rising and homes are being repossessed. Generation Y are more debt averse than Generation X and Generation Z are likely to be more so as they grow up with the experience of the current recession and the reality that banks are no longer the pillars of trustworthiness in society. Aversion to debt will impact greatly on the full-time undergraduate market with fewer people opting to take out student loans to pay fees. Instead they will opt for part-time education in bite-sized chunks that they can put together as a qualification, while working full-time to support themselves.

In 25 years we see the HE sector as much smaller than it was, with the transference of undergraduate provision to the further education (FE) sector. Undergraduate (UG) education has been commodified to small, transferable modules, that can be combined with work-based learning to accumulate to degree awards. Undergraduate students are mainly part-time. FE colleges have degree awarding powers at undergraduate level.

A few, niche institutions – those that generally take the form of the ‘ancients’ with ‘castles on a hill’ – survive by offering the traditional full-time undergraduate experience to the upper middle classes and those who can afford to attend on this basis. In essence, the undergraduate sector has returned to its position before the ‘red bricks’ were built, offering an elite educational experience to the small percentage of the population who can afford it, with the remainder of the population engaging in more vocational and work-based qualification routes as the foundation for their careers. These ‘castle’ institutions can award undergraduate, postgraduate and doctoral qualifications.

The HE sector is therefore mainly a postgraduate sector, offering postgraduate qualifications, doctoral supervision and engaging in post-doctoral research. Entry into the HE workforce is through the traditional research career entry route and the sector is returning to an academic workforce that has no experience of working outside of the university sector.

This small sector is largely government funded, but there are requirements for knowledge transfer and hence a new workforce has emerged in the sector of the professional who can manage the interface between the outside world and the university. This is a new role and involves public relations (PR), communications with business, brokering and selling the knowledge created in the university. This new role is highly qualified as the individuals need to fully understand what they are selling, but the individuals are not involved in creating what they are selling (i.e. they do not actually do the research themselves, but have the knowledge base to disseminate it to others). This is a highly paid new job role and is rewarded more highly than that of the professors who are creating the knowledge themselves. There are also a considerable number of administrators, project managers and technicians employed to manage the knowledge production process.

The job of an academic becomes highly privileged as those tasks that fall outside the realms of the individual's immediate expertise are picked up by others. The academic is thus allowed to indulge themselves in the knowledge creation process in the comfort that others will manage and leverage their findings. It is not the most highly paid job because academics are unlikely to want to leave this position.

The management of HEIs consists of those who excel in the new professional job role and are essentially external facing academics, who can empathise with the research academics and value the contribution of the knowledge transfer professionals. This new professional job role has individualised contracts and conditions, while there is a return to national bargaining for pay and conditions of those in more traditional academic employment and there are comparable salaries for teaching and researching within this postgraduate community. There is a return to the pre-92² contractual base and tenure is a common feature of contracts.

The HE sector is concerned with leading innovation and contributing to policy, offering high level, conceptual development in an increasingly specialised manner. The job of building a critical mass of knowledge workers has transferred to the FE sector and the undergraduate provision of the HE sector is concerned with developing its own future workforce.

The stepping stone vision for 10 years which would suggest that we are moving towards this scenario is one where we are seeing increasing numbers of mergers of FE and HE institutions as collaborative partnerships take on new corporate forms. Researchers have migrated to fewer institutions and the distribution of research funding has been limited to a quarter of the sector as it stands today. Post-92³ employment contracts remain in place, but the sector is starting to become polarised, with individuals only transferring between institutions that have a similar history. Funding for the majority of institutions stems from teaching activity rather than research. International student enrolments have dropped off at the largely teaching oriented institutions but remain steady in the research supported institutions, as the choice of full-time courses is greater at

¹ This was a report commissioned by colleges and Universities in the South West Midlands region called ‘The Talent Incubator’ report and may be available by request (contact e.v.blass@herts.ac.uk).

² Prior to 1992, the University sector in the UK was relatively small and the employment contracts were highly privileged, offering outstanding job security through the concept of tenure.

³ In 1992 the Polytechnic sector in the UK became part of the University sector and employment contracts changed significantly to reflect the larger, more diverse sector. The issue of ‘tenure’ is not present in post-92 university employment contracts while it does still exist in some pre-1992 university contracts.

the research supported institutions than the others. Over 60% of undergraduate students study on a part-time basis while working full-time and modularisation of qualifications is standardised across the UK with the Bologna⁴ transferability process being utilised to its full capacity. It is rare that an undergraduate student completes their whole degree at one institution.

4.2. Scenario 2: responsive knowledge creation

The driving force leading to the development of this scenario is the division of disciplines, as the development of the corporate sector leads to a funding stream for professional qualifications, professional research and collaborative means of working. At the same time, there is refinement of research funding criteria towards maintaining those areas of the sector that are not sustainable in their own right, but need to be maintained in order to provide a liberal base to education and society.

In 25 years we have a dual sector which is crudely split between 'pure' and 'applied' provisions. Both sectors provide all levels of degree, with the pure specialising in the arts and liberal subjects, leading to the doctoral qualification of PhD, while the applied specialise in vocational and professional qualifications, leading to professional doctorates such as the Doctorate in Business Administration (the DBA) or the Doctorate in Education (the EdD). You would not find a business school in a pure institution, nor would you find history in an applied institution. Law and medicine are situated in applied institutions.

The pure element of the sector is characterised generally by the 'castle' institutions, offering liberal arts, politics, philosophy and economics (PPE) and history. Research is funded by research councils, is Mode 1 [27] and can be described as 'just in case' knowledge production. Institutions in this category represent the minority of the sector, accounting for 20% of the workforce and 10% of the students. The staff:student ratio in this side of the sector is higher than for the applied side. Academic careers are developed along traditional routes with undergraduate students remaining within the academe to study full-time for a PhD, obtaining no experience of life outside of the university sector.

Contractual terms are rigid and performance related and pay levels are determined by the minimum required in order to be able to recruit staff. There is some movement of staff from this sector to the applied sector, but no movement in the other direction.

The applied sector represents 80% of the sector in terms of workforce and 90% of the student population. This element of the sector is characterised by the redbrick and post-92 institutions and has a workforce that consists of individuals with a combination of academic qualifications and professional experience. Most of the workforce in this segment have experienced work outside the university sector.

The institutions operating in this area of the sector have strong links with industry and professional bodies and offer a wide range of undergraduate, professional and work-based learning qualifications, with only a small number of students undertaking doctoral research through professional doctorates. Postgraduate provision meets the continuous professional development (CPD) requirements of professional bodies.

Research in this sector is Mode 2 [27] and can be described as 'just in time', being funded to problem solve and innovate for corporations, as well as contribute to societal development through EU funded programmes and the public sector.

Contractual terms are variable, with flexibility in terms and conditions and performance related pay. Pay levels are determined by market forces, hence those employed in the pure sector are likely to be paid less than those employed in the applied sector.

The *stepping stone vision for 10 years* which would suggest we are moving towards this scenario is one where we have a 40:60 split in provision with migration of disciplines between institutions. Market related pay has broken down national bargaining as the applied subject areas need to move away from standardised provisions in order to attract and retain staff within the sector. Anomalies within institutions causes unrest in the workforce, with employees in the applied subject disciplines feeling they deserve higher reward packages because they generate more income from having more students and those in the pure subject disciplines believing they should be rewarded for the research outcomes they generate.

Polarisation within institutions sees teams of research experts move between institutions as they win external funding grants and 'buy' their way into the institutions they prefer to locate themselves in. The ancient universities become more remote from industry and professional bodies as their historical infrastructure and traditions of working practices prevent them from responding adequately to the needs of 'customers'. They become more entrenched, with their business schools hiving off into wholly owned private subsidiaries and are sustainable only through the funding stemming from the profits of these subsidiaries and their property income. Research and teaching income meets the wages bill but little more.

The redbrick and post-92 universities are securely funded by corporate collaborations and government funding for teaching. They offer a variety of study options which means that more students can be accommodated within smaller building space, as blended learning and block delivery become the norm and many courses are delivered in off-site hubs, such as corporate premises, local schools in the evenings and hotel conference facilities. The majority of students are part-time which allows for facilities to be used all year round and provides flexibility in the semesterisation process.

⁴ The Bologna agreement refers to the European Union agreement to standardise qualifications such that modules can be transferred between universities in member states, to allow students to transfer their qualifications from one countries institutions to another without being discriminated against.

4.3. Scenario 3: regional conglomerates

The key drivers underpinning this scenario are a combination of funding cuts necessitating cost savings and the fact that currently 55% of all staff employed by HEIs are not academics. This suggests that there is room for cost saving efficiencies along the lines of multinational conglomerates in terms of organisation and infrastructure. This scenario could be generated from either a business need or an educational need, if the requirements of external agencies requires greater knowledge pools and collaborations between institutions. There is a danger in this scenario that the sector degenerates into one of intense internal competition, however that would not be sustainable in the longer term and hence may be a difficult period that the sector needs to endure in this scenario as it goes through a transformation process.

In 25 years we have a sector that consists of regional universities, dispersed across a range of campuses, providing education at all levels to anyone who is beyond school age. Degree awarding powers are centrally held within the region and institutions lose their individual identity in favour of a regional identity. Competition within the sector is therefore between region rather than within regions, allowing the various institutions that make up the regional conglomerates to play to their strengths. Institutions become mutually dependent as they specialise in certain areas of provision, working in partnership with others to provide a complete programme of study or learning experience.

Contractual terms are harmonised to encourage everyone to play to their strengths and career paths are much flatter but transferable and flexible. It is easier to move between teams and institutions as there is little pay differential between individuals and institutions within the conglomerate.

Overall, being an academic is lower status than it currently is in society and less specialist. There is no benefit in making knowledge scarce or inaccessible, so the culture is one of knowledge sharing and networking; knowledge is managed generally as a team-based expertise rather than having individual stars.

The purpose of the conglomerate is educationally driven for sustainable society and the contribution to the region, democracy, individual communities and the environment is greater than is currently the case. Funding is distributed through a regional core fund and then additional funding according to the need of the region. Efficiencies are achieved through regionalising services and quality functions and partnership working to the point that the conglomerate becomes embedded in the region and it is the obvious point of call for industry, the public sector and community groups, whatever their knowledge, education or research needs.

International activity occurs through partnership arrangements for development purposes which are mutually beneficial to all parties concerned, with neither party making a profit from the other.

The 10 years stepping stone which would suggest we are moving towards this scenario is the development of regional partnerships, with some mergers starting to occur between institutions. There will be validation and franchising between institutions so that teams can deliver similar programmes around the region and cross-institutional teams will develop. Secondments between institutions will also become more frequent, for collaborative projects and the sharing of expertise. Knowledge will hold more value when it is shared rather than 'owned'.

This is a difficult stepping stone as merged institutions change their identities and individuals adjust. Internal competition may arise as institutional loyalty will result in colleagues 'rejecting' each other and not wanting to be 'taken over', but in time the benefits of the merger will be shown to outweigh the transformational difficulties. As mergers become more common, individuals working within the sector will see it as the norm rather than as a mark of failure for their institution. The academic workforce will increase as a percentage of the total workforce as economies of scale are achieved through the operation of the institutional infrastructure.

4.4. Scenario 4: no government funding

The drivers for this scenario are perhaps the closest to those that would be seen in a 'business as usual' type scenario. The economy is in recession. The government is funding the banking sector. More people are living longer and putting greater strain on the National Health Service (NHS). Education is now compulsory until the age of 18. The government gradually withdraws funding from the HE sector on the basis that it has to fund itself through individual student fees and corporate funding for third stream activity.

This leaves us, *in 25 years time*, with a small, privatised sector which has to generate its own funding base, largely from individual students and corporations. Some institutions manage to maintain an international element of funding through overseas campuses and collaborations but the majority are reliant on home markets. The funding base is insecure for the majority of institutions (a couple have property revenue that gives them an underpinning security).

Being an academic is much like any other highly skilled job, in that it is high stress, highly competitive and your job is only as secure as your last semester's teaching, research or income generation. Everyone has to generate enough income to secure their salary and pay is individually negotiated within a bonus culture.

Overall the workforce is much smaller, with a bare minimum as an administrative and systems core and 'assistants' being employed on the back of senior academics income generation. There is extreme marginalisation of those subjects that do not have a direct vocational link and those employed in that segment are dependent on charitable foundations to support their work. They are the least well rewarded in the sector.

Networking and lobbying have become core skills for the academic workforce and there is something of a 'celebrity culture' developing around key individuals and their contribution to 'society'. This contribution is more to the

economy than society as a whole and results in hybrid for-profit spin-off companies that further reinforce the celebrity culture.

Higher education itself is differentially priced according to what the market will tolerate. Individuals develop their own learning agenda and select delivery options to suit their needs and budget. They swap and choose between institutions collecting credits as they go, gaining accreditation for a final award through a global process when they have accumulated a set number of credits at a certain level.

The majority of the student body is part-time, as is much of the workforce. A lot of classes take place in the evenings or weekends and experienced professionals play a role in the provision of teaching, bringing 'real life' experience to the classroom in combination with the theoretical underpinnings. This role is viewed as a high prestige route to retirement by industry and hence part-time lecturers are relatively easy to recruit. The role adds credibility to managers in industry, although it does not pay well, it looks good on their curriculum vitae (CV).

Those students that are studying full-time tend to be 3rd age students who have returned to study for pleasure in their retirement from full-time work. They support any research culture that remains in institutions through their natural curiosity and have instigated a whole new niche market for research degrees.

The stepping stone which would suggest that we are moving towards this scenario *in 10 years time* is greatly reduced government funding. There will have been redundancies across the whole sector and all new appointments are made on short-term contracts. The concept of tenure has disappeared from the sector as a whole and national bargaining broke down years ago. There is already a large part-time workforce as professionals supplement their income with part-time lecturing and this becomes an attractive proposition to employers as a means of executives working through the transition to retirement. Industry is therefore highly supportive of such endeavours and start approaching their local universities with collaborative ideas on this front.

Networking is key to maintaining employability in the sector, both within the sector and with industry and external parties. Individuals need to create their own unique selling point to remain employable on a full-time basis and the culture of the sector is very split between those who are succeeding and those who know they do not have the enterprise skills necessary to create their own salaries. Rather than becoming collegiate and working as whole institutions to sustain as many in employment as possible, institutions have become internally competitive keeping as much of the income they generate within disciplines and schools rather than contributing to the centre.

4.5. Scenario 5: total government funding

The drivers behind this scenario start off as exactly the same as for the scenario above. However, the 10 year stepping stone is viewed by the current government as a crisis point and there is a general unease in the population at large that the education system is continuing to decline. The government announces a new 2% income tax specifically for education—the NET contribution (National Education Tax) which is paid in addition to national insurance. This brings funding of the education system squarely within the welfare state and every citizen gains a minimum entitlement to education at level 4 (an undergraduate degree). While this tax is not popular – as no new tax ever is – it is appreciated generally as a better alternative to the 2.5% being added back on to value added tax (VAT) and because everyone is contributing to paying for HE, more people decide they should draw on their entitlement.

In 25 years time we have a very robust HE system in the UK which is the envy of many other nations. The participation rate is high and courses are offered in a variety of forms: part-time, full-time, flexi and distance learning. There is a large full-time student population as there are no fees incurred in studying undergraduate qualifications and the majority of younger students live at home as the cost of living away is high. There is also a significant body of non-traditional students as those who could not previously afford to go to university are now taking the opportunity, however this student sector will only be sustainable for a 10–20 years period as this untapped market reaches saturation.

The sector offers secure, stable employment with a variety of job roles on offer. There is national bargaining on pay and conditions to maintain regularity and equity within the sector and internal competitiveness has shifted towards a collaborative model as funding becomes equitable. Institutions have no cap on the numbers of students they take, so a free market operates which provides balance across institutions in terms of focus, speciality, research, teaching and third stream activity. The security in funding allows the players in the sector to develop their strengths, take risks in new areas of development and work collaboratively to develop specialism.

There are long term career structures for those who prefer teaching, research, professional or management roles. The expansion of the sector has opened a multitude of opportunities with regard to development of lifelong learning and wider curriculum activities. There is increased partnership working with schools, colleges, community groups and industry, which in turn are developing new career path opportunities in parallel with the more traditional academic route.

Although the sector is more unified and uniform in provision, it is by no means homogenous and students will move between institutions accumulating credits towards qualifications as they desire. This leads to the curriculum becoming modularised in many subject areas, with professional and postgraduate CPD offerings building on this undergraduate modularisation. Students will not be loyal to any particular institution, but rather will move around to gain a wider experience and exposure to different academic teams. A full-time student may, for example, attend courses in two or three different institutions.

Quality will be measured to a greater degree by customer satisfaction and new quality measures will be imposed by government to 'assure' the tax payer is getting value for money. This will lead to a culture change similar to that within the

NHS, where patient satisfaction is an important measure, rather than patient treatment. HEIs will need to provide an enjoyable, supportive and responsive education service rather than simply qualifications.

Ironically, because this scenario is not at all dependent on overseas student funding, it is the scenario which is most appealing to overseas students, as it is the most responsive to their needs.

The *10 years stepping stone* which would suggest we are moving towards this scenario is not quite so clear. It is either the same as for the 'no government funding scenario' as it is just before the government announces its funding u-turn, or it is just after the government NET announcement. If it is the latter, the sector is at a point of relief in knowing that rescue is in sight and planning for expansion. Either way, there is a lot of stress and anxiety in this scenario and those that are employed at the point of shift from contraction to expansion will be severely overworked for a couple of years as the sector expands in students numbers faster than it expands its workforce.

5. Conclusions

The scenarios outlined in this document differ from those presented elsewhere because they focus on the nature and shape of the sector, looking at what this means for HEIs, rather than starting with HEIs under the pretence that they will be able to shape the future direction of the sector. This is largely why the issues which are occupying debating time at institutional level are considered as given assumptions within the scenarios presented in this report, i.e. globalisation and the international market, digitalisation and the use of ICT, demographics and the non-traditional student market and issues around democracy and the role of the media. While institutions may respond individually in different manners to these issues, their responses will not significantly impact on the future shape of the sector itself. Of much greater importance are funding streams and the nature of the 'academic' and 'allied' job roles as competitively attractive offerings in the future labour market.

The five scenarios presented in this report are the extreme ends of possible and plausible futures according to the interpretations of a range of literature from the knowledge bases of a futures expert, an HR expert and an education policy expert. They offer a range of alternative futures for the HE sector as a whole in the UK. The language used is provocative, generalised and biased in order to highlight the differences between the scenarios and elicit an emotional response from the reader. That is the nature of scenario work of this type.

Scenarios are not predictions. They are tools that can be used as thought provokers, conversation starters, and/or strategic planning exercises, to challenge existing paradigms held within the sector [28]. They are indicative of what might be, and offer their readers an idea of what it will feel like to be in that scenario in 25 years time. From that position the reader can work backwards to the current position and look at what needs to change in order to prevent or encourage a particular event occurring. This differs from other strategic planning exercises which start with the current position and look at what can be achieved in the future. This latter position assumes that institutions are relatively autonomous and in control of their environment. The scenarios presented here assume otherwise; that the environment will control the nature of the institution, largely through funding mechanisms, the nature of knowledge and the nature of work.

The scenarios can be used in a number of ways by both HEFCE and individual HEI's. While individual HEIs can prepare themselves to best adapt or prepare for each of these scenarios, they do not have the power individually to shape the sector, although they may as a collective, for example, help drive the knowledge responsive or regional conglomerate positions. HEFCE, on the other hand, could provide a forum for collective for consideration of the scenarios and influence government policy, one way or another, to ensure that any particular scenario cannot occur, or direct matters towards any particular scenario becoming more likely to occur. This could be facilitated through a workshop, for example, where senior representatives from HEIs work in small groups to consider a single scenario, drawing out what would need to happen in order for that scenario to occur, and what would be the benefits and detriments to individual HEIs if that scenario were to occur in its entirety. They can then regroup and develop strategy to try to prevent certain factors from occurring, or indeed trying to ensure that they do occur. Scenario planning interventions such as this, used to overcome strategic inertia, are most successful if the organisation is prepared and receptive to such a scenario intervention, rather than dependent on coping behaviour that reinforces procrastination, buck-passing and a lack of psychological attenuation to the perceived level of environmental threat [29]. Hence the selection of the group that will work with the scenarios is key to the success of the strategic outcome.

At an institutional level, a similar exercise could occur, but focussing on individual institutional strategy in the event that any of the scenarios start to become more likely than the others. HEIs can also consider what form they wish to take in the future in order to be robust enough to withstand or adapt to any of the scenario outcomes. This can help with a range of future dilemmas including human resource planning, business strategy, expansion or contraction plans, and new market development.

The scenarios aim to 'shock' their readers into seeing something differently, in this case, the HE sector in the UK in the future. The aim is to shock readers by presenting a future which (a) they have not considered or even thought about as a possibility; (b) is plausible (rather than completely unbelievable) to the extent that readers are thinking 'gosh, this could really happen'; and (c) generates enough of an emotional response to bring about some action. They should be used to initiate conversations at an institutional and national level that will allow policy makers to influence the future of the sector and institutional strategists and leaders to prepare for a range of possible futures and the direction of their particular institution. This would include horizon scanning for early warning indicators that particular circumstances are indeed starting to occur.

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