Knowledge production as a function of the individual institution's idea of a university

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Abstract

This article looks at knowledge production in higher education (HE) from the point of view of how a given HE institution defines itself within the broader context of 'the idea of a university'. In this regard, the article makes a critical analysis and interpretation of the literature on the central question of 'the idea of a university', and the bearing of this on knowledge production. An overview of the history of universities is given, followed by a reflection on the literature pertaining to the notion of 'the idea of a university'. This is done so as to contextualise what presently obtains with regard to conceptual types of universities around the world *vis à vis* the attendant knowledge to be pursued in the institution. In this regard, the article posits that the primary purpose/focus of knowledge and knowledge production will be a function of the given university's idea of itself.

THE ANTECEDENTS

The question as to what constitutes a university and, therefore, how one would identify a university, is a complex matter. Equally complex is also the question of when and where university education first started. What appears to be generally similar appears to be *how* university education originated, that is, in monasteries/synagogues/mosques, or through a proclamation by a head of state – who was also most times the religious head. As Gray (2001, 4) observes, from the early times through the middle ages, 'the idea of a university was still tightly bound to religious authority and clerical purpose'.

In terms of the debate regarding when and where the first university education took place, Buddhists posit that university education started with them – as evidenced by the quotation (http://www.indiaoz.com.au/hinduism/article/amazing): 'As early as 700 BC there existed a giant university at Takshashila, located in the northwest region of India. Not only Indians but also students from as far as Babylonia, Greece, Syria, Arabia and China came to study.'

It is further claimed that at this university experienced Masters taught a wide range of subjects: vedas, language, grammar, philosophy, medicine, surgery,

archery, politics, warfare, astronomy, documentation, occult, music, dance, the art of discovering hidden treasures, etc. Furthermore, it is reported that around this time (i.e. 700 BC), there were 10 500 students at Takshashila University (ibid).

Still on the Indian sub-continent, there is a further claim that Nalanda University was founded in the 5th century. There is even a contradictory (counter?) claim that it was 'the first great international monastic university. It was from this university the seat of knowledge for the world, that the light of knowledge spread all over' (http://www.indnav.com/servlet/Browse?mt=goToName+name= Nalanda+university).

In Europe, Plato is believed to have established his Academy around 360 BC, and around that time, another famous academy was established halfway across the world in Shandong, in China – which subsequently 'became one paramount model for all subsequent Chinese institutions of higher learning' (Yu 2001, 2). The Jixia Academy, as it was called, 'owed its creation and continuance for several decades to the powerful Duke of Huan in the State of Qi' (ibid). However, other accounts of the history of universities in China place Nanjing University – presently known as National Nanjing University, located in Taipei, Taiwan, as the oldest Chinese university. In this regard, it is reported that Nanjing University was originally founded as the Imperial Central College at Nanjing in 258 AD under the kingdom of Wu by the emperor Sun Xiu, and that subsequently it became the largest HE institution with10 000 students in the 15th century – 'many of whom came from a number of other countries' (http://copernicus.subdomain.de/NanjingUniversity).

Going back to the Plato Academy, it is reported that the Academy was founded 'in the grove of Academos near Athens, taught its students philosophy, mathematics, and gymnastics, and is sometimes considered a forerunner of modern European universities' (http://www.grohol.com/psypsych/University). Later on in Europe, other universities emerged, such as one founded in 1088 AD in the northern Italian city of Bologna – subsequently giving rise to similar institutions in Rome and Greece.

In Persia, the Academy of Gundishapur, 'founded in 271 AD by the Sassanid dynasty, is the oldest known teaching hospital. It was an institution for philosophical and medical studies of the ancient world . . . located in the present-day province of Khuzestan, southwest of Iran' (http://www.grohol.com/ psypsych/Academy of Gundishapur).

In Africa, Al-Azhar University, in Egypt, is taken as having 'pioneered systems of advanced instruction with its hierarchy of regular instructors and visiting professors' (http://ask.yahoo.com/ask/20030501.html). Like many centres of learning, Al-Azhar University was originally intended as a place of worship and religious instruction. However, scholarly activities are reported to have started at the mosque in October, 975 AD, by way of a seminar delivered by Abu El-Hassan Ali ibn Al-Nu'man El-Kairawany. This seminar was subsequently followed by many others. It is further reported that although these seminars were religious, they

had political overtones – 'and were inherently characterised by free scientific discussions and scholarship' (ibid). To date, Al-Azhar is revered as one of the most famous in the Muslim world, and is considered the seat of Sunni Islamic study.

The oldest University in the USA, Harvard, opened in Cambridge, Massachusetts, in 1636, not long after the first English colonialists arrived in the Massachusetts Bay Colony.

It is quite clear, therefore, that talking about the oldest university would conjure up different thoughts in the minds of different people – depending, in part, on place, time and context. As Gray (2001, 1) observes, 'myths attending the origins of universities have been legion'.

However, Gray (2001) further differentiates between the argument concerning what may conceivably be the oldest university, on one hand, and the history of the idea of a university, on another. In this regard, Gray posits that the latter is considerably shorter than the former. In addition, Gray (2001, 3) observes that most early universities were not founded in a deliberate and well calculated way. 'The first universities were corporations of faculty or students or of faculty and students both, and that is how Bologna, later in the twelfth century, and Paris, very shortly after, and Oxford, not so long after that, came to be recognized as such corporations or gilds which had certain features roughly in common.'

Overall, Gray (2001, 1) sums up the genesis of ancient universities in the following words: 'What must more soberly be said is that, in their most ancient incarnations, universities just sort of grew rather than emerging as outcome of a conscious act or out of some explicit and purposeful idea of a university.'

Indeed, this was the case as it is reported that the term university 'is derived from the Latin *universitas*, meaning *corporation*, since the first medieval European universities were often groups of scholars-for-hire' (http://www.grohol.com/psypsych/University).

Table 1 gives a summary of the chronology of early and medieval universities according to the literature presented above.

THE IDEA OF A UNIVERSITY

Having reflected on the genesis of institutions which may be recognised as the early and medieval universities, it is then pertinent to reflect on what a university is.

The encyclopaedia definition of a university is that it is 'an institution of higher education and of research, which grants academic degrees. A university provides both tertiary and quaternary education' (http://www.grohol.com/psypsych/University). The first question that arises is 'higher' than what? Does this refer to education 'higher' than high school, or 'higher' than another level of education? The second question relates to whether or not the term 'academic degrees' also covers 'professional qualifications' conferred by universities.

Table 1: A chronology of early and medieval universities

Time in history	India	Europa	China	Persia	Africa	USA
700 BC	Takshashila University (Buddhist)					
360 BC		Plato Academy	Jixia Academy (State)			
258 AD			Nanjing University (State)			
271 AD				Gindishapur Academy		
4xx AD	Nalanda University					
975 AD					Al Azhar (Sunni: Islamic)	
1088 AD		Bologna				
1150 AD		Paris				
1167 AD		Oxford				
1175 AD		Modena				
1209 AD		Cambridge				
1636 AD						Harvard

The University of Bologna Prospectus (2005) itemises three criteria by which a university may be identified:

- a place where a scholar traces the outlines of a discipline and within this framework carries out precise research for the sake of knowledge;
- a scholar, while carrying out his research, transmits his knowledge to a group of pupils who follow him freely, this being done outside any other official institution whether of the Church or the State;
- society may, if necessary, turn to this centre of research to exploit its knowledge for practical ends.

What is not clear is for how long the University of Bologna has held to these three criteria or characteristics of a(n) university; and, therefore, the extent to which these criteria may be applicable to the ancient universities.

In 1851, Henry Tappan, as quoted by Gray (2001, 7), said the following about the idea of a university:

> How simple the idea of a university. An association of eminent scholars in every department of human investigation; together with the books embodying the results of human investigation and thinking, and all the means of advancing and illustrating knowledge ... How simple the law which is to govern this association! ... each member as a thinker, investigator, and teacher shall be a law unto himself, in his own department.

In reflecting on this quotation, Henry Tappan posits some important characteristic features of the idea of a university, that is, as a place where the main activities are (a) to think, (b) to research, and (c) to teach (and therefore to learn). Equally importantly, is the notion of 'academic freedom' implied in the words: 'each member ... shall be a law unto himself, in his own department'. This is a feature of universities which, if ever it was enjoyed then, is currently becoming illusive in present-day universities with calls for accountability and social relevance.

Three years later (i.e. 1854), Cardinal John Henry Newman, in his classic piece of work on the 'idea of a university', described a university as a:

> school of universal learning ... it is a school of knowledge of every kind, consisting of teachers and learners from every quarter ... [it is] a place for the communication and circulation of thought, by means of personal intercourse, through a wide extent of country ... a University is a place of concourse, whither students come from every quarter for every kind of knowledge. You cannot have the best of every kind everywhere; you must go to some great city or emporium for it. There you have all the choicest productions of nature and art all together, which you find each in its own separate place elsewhere (Newman 1998, 1–2, 5).

The first added feature of Newman's quotation relates to the 'universality' of knowledge. Newman sees a university as a 'school of universal learning' that brings together knowledge from all over the world to this one 'great city or emporium'. A second important aspect of the quotation pertains to the preferred mode of 'communication', that is, 'by means of personal intercourse'. Evidently, in modern times, one finds this mainly only at postgraduate level, where a student is assigned to a promoter/supervisor (or even a committee of 3 to 5 academics) to guide and work with him/her.

Levine (2000, 8) summarises Newman's idea of the idea of a university as 'cultivating the general powers of the intellect', which in practice manifests itself in terms of 'a curriculum geared to the end of cultivating human powers; pedagogical methods geared to that end; examinations geared to that end; and procedures for periodic experiment and assessment of all these elements' (Levine 2000, 10).

On his part, Atchison (1997, 9) sees a university as: 'a rationalistic engine, unhalted in its "progress" while it provides a platform for many worldviews ...

My idea of a university is a place where the lost ideals of scholarship as leisure, reduced preoccupation with business, interdisciplinary studies, and a community of readers are recovered.'

To Smith (2000, 1) a university is 'a privileged social locus where a variety of competing interpretations and proposals as to ''what is the case'' may be explored, experimented with, and evaluated apart from urgent needs and ineradicable consequences'.

However, there is also a view that the idea of a university is not a static construct. Indeed, as Gray (2001, 4) observes: 'The history of the idea of the idea of a university is one of continuing reinterpretation and re-adaptation in which the strongly felt need to assert a continuity with the past confronts the project of giving new life and form and purpose to the higher learning under circumstances quite remote from that past. The past was continually evoked and cited to legitimize later ideas, and it was continually altered and given a modern face-lift by doing so.'

Simply put, 'the university is today, as always, a work in progress' (Stone 2000, 2).

Indeed, the shifting notions of the idea of a university also reflect themselves in the ever-changing purposes of universities, as will be seen below.

THE PURPOSE OF UNIVERSITY EDUCATION

Perhaps one way to better understand what a university is, is to look at its purpose. At a general level, Plato envisioned the purposes of education as being (a) vocational and technical; (b) professional and managerial; and (c) philosophical (Lowe, no date (a)). In similar vein, Lowe (ibid) characterises these purposes as, respectively, being *functional, ideological* and *philosophical*. Accordingly, the methodologies used to achieve each one of these education types would also be different, as depicted in Table 2.

Table 2: Types, purposes and methodologies of Plato's education types

Type	Purpose	Methodology
Vocational and Technical	Functional	Communicated to Learner; Imitation
Professional and Managerial	Ideological and Functional	Communicated to learner; Internship
Philosophical	Ideological and Liberal	Analytic and Speculative

The vocational and technical aim of education focuses on the utility value of education, committed to achieving a country's economic goals through skills development and programmes of study specifically tailored to the needs of commerce and industry. In this regard, vocational and technical education is

construed as functional, to the extent that it aims at equipping students with the vocational and other practical skills needed by society to achieve certain espoused goals.

The professional and managerial aspect of education is an extension of the vocational and technical, but occurs at a higher cognitive and epistemological level – thereby producing professionals and managers to run administrative systems of government. In essence, professionals and managers are the people who are trained and educated to hold the 'political and ideological' power needed to run a country, usually in support and preservation of the status quo.

Referring to Table 2, the primary purpose of professional and managerial education is 'ideological and functional', as opposed to the 'ideological and liberal', which is claimed by philosophical education. In this regard, within the ideological and functional realms, HE seeks to liberate people by imbuing them with professional and technical skills – including the inculcation and cultivation of certain attitudes, beliefs and behaviours. This is very much so, particularly where HE is driven by religion, politics or sectarianism. Certainly, given that the early 'universities' originated in mosques, synagogues and monasteries, or decreed by the rulers, the ideological component was the main focus – although claims are made of open philosophical debates taking place in these holy places. Nonetheless, one is more easily persuaded to see ideologically-based HE as being more about conformity than divergent thinking as an end in itself. It is more in line with what Erikson (1965) describes in his observation that the aim of education is to produce the sort of people who will replicate the society which produced them. Indeed, as Lowe observes (no date (b), 2) 'those who, in the light of history, turn out to have been the real educators, shapers of the future and of new human beings, frequently are poor, disempowered, ignored, or, if acknowledged, cavilled against – even killed'.

Philosophical education, on the other hand, primarily seeks to pursue 'knowledge for its own sake' (i.e. philosophical), and does not concern itself with the immediate utilisation or application of such knowledge; it seeks to develop the individual's mind (hence liberal) so that s/he can think for her/himself – be it in the arts or sciences.

Deriving out of Plato's classification of educational purposes given above, some authors have subsequently characterised universities in terms of their dominant (or even exclusive) 'type' of educational purpose. These are now presented and discussed.

The Athens Model university

With reference to the Athens type university, Newman (1998, 15) observes, *inter alia*, as follows:

> Athens was the home of the intellectual, and beautiful; not of low mechanical contrivances, and material organization . . . I suppose you did not come to Athens to

swarm up a ladder, or to grope about a closet: you came to see and to hear, what hear and see you could not elsewhere. I doubt whether Athens had a library till the reign of Hadrian. It was what the student gazed on, what he heard, what he caught by the magic of sympathy, not what he read, which was the education furnished by Athens.

An important point to note here is that a student went to the University of Athens not as an investment for employment afterwards but purely for intellectual stimulation and nourishment. The main focus on the Athens University was the 'development of the mind', that is, 'learning to think' and 'the search for truth', as ends unto themselves. This is further reiterated by Newman (2001, 106, 107), emphasizing the importance of teaching for knowledge's sake: 'I consider, then, that I am chargeable with no paradox, when I speak of a Knowledge which is its own end, when I call it liberal knowledge, or a gentleman's knowledge, when I educate for it, and make it the scope of a University.'

Being a Catholic Cardinal, Newman was concerned with university education which left a personal and permanent mark on the individual. In this regard, although he presents a philosophical argument (i.e., knowledge for its own sake), there is also an ideological (and hence liberal) strand that runs through his intentions. The liberating experience is seen as resulting from the knowledge acting upon one's 'mental nature' and building a certain type of character in respect of a given individual. There is, therefore, a 'hidden' purpose implied which should manifest itself in a 'changed' individual as a result of university education. This is the interpretation I make from the following words (Newman 2001, 106, 107): 'Since cultivation of mind is surely worth seeking for its own sake, we are thus brought once more to the conclusion, which the word "Liberal" and the word "Philosophy" have already suggested, that there is a Knowledge, which is desirable, though nothing come of it, as being of itself a treasure, and a sufficient remuneration of years of labour.'

Further to the above, Lowe (no date (c), 2) makes the following remark regarding the Athens model of education: 'Athenian education had had as its content gymnastics, dancing, music, science and philosophy, a combination which developed equally the body, the emotions and the mind.'

This concurs with the above notion of an Athens-type education which gave one a liberating experience, through a relentless search for the truth.

The Berlin Model university

The philosophical foundations of the 'Berlin' model university trace their roots to Wilhelm Humboldt's memorandum 'which inspired the creation of the University of Berlin' (Levin, 2000, 5). Levin (2000, 5) goes on to say that the University of Berlin 'projected a university based on three formative principles', namely:

- unity of research and teaching
- freedom of teaching, and
- academic self-governance.

The two notions of 'freedom of teaching' and academic 'self-governance' emphasise the notion of academic freedom, for both the individual lecturer and the institution, which has so often been associated with university education – and which tallies with the idea of a university as a place where the 'teacher shall be a law unto himself, in his own department' (Tappan as quoted by Gray 2001, 7).

The essence of the 'Berlin University' is thus explained by Levin (ibid) as follows:

> The first of these principles – the unity of teaching and research countered those systems in which research goes on independently, by private scholars or in separate research institutes, without the stimulation of sharing those investigations with young minds, and in which higher education was carried out by scholars who failed to engage in original inquiry. The second principle, *Freiheit der Lehre und des Lernens*, meant that professors should be free to teach in accordance with their studiously and rationally arrived at convictions. The principle of academic self-government, only implicit in Humboldt's memo but increasingly apparent as an integral component of his vision, was meant to protect academic work from distortions of governmental control.

This point is further expounded by Gray (2001, 7) who interprets Humboldt's idea of a university as a place: 'where universal truth and the disciplines of learning might be searched out and advanced unfettered by utilitarian considerations or by the orthodoxies of other traditions or by the pressure of state authority or by the demands of social contribution or by responsibility for elementary collegiate instruction'.

However, the notion of the University of Berlin as being 'unfettered by utilitarian considerations' is not in concord with the reality that the University of Berlin also professed 'comprehensiveness of knowledge, all types including those that might have a practical bearing'.

Levin (2000, 7) further explains that in adherence to the Berlin model, academic staff, administrators, students and the library all conspire to: 'maintain the primacy of original scholarship and the teaching programs that relate to it. In accord with this model, all elements of the University's curriculum are geared to the kinds of committed, specialized work that produce either future investigators or future professionals whose work depends upon a sophisticated knowledge base.'

From this quotation, it is clear that the basic elements of the Berlin-model university were:

- Teaching informed by the latest research findings
- Conducting original research
- Producing graduates with the requisite research skills and competencies
- Producing graduates with professional qualifications based on research and scholarship, rather than those based on functional skills.

For being humanistic, Gray (2001, 5) characterises the Berlin type university as: 'located in the ancient corpus of the liberal arts, grounded in a direct return to and immersion in the ancient texts themselves, and looking to the creation of capable, ethically sound and well-rounded individuals who would apply such learning to the civic and secular world'.

Gray (ibid) goes on to state that humanistic scholars: 'argued that the professional education and forms of scholarship pursued in the universities had no relevance to the needs of their society or to the understanding of those matters that had to do with human life .... They maintained that liberal education and humanistic scholarship should equip people to lead a good life.'

The Berlin type university tends to favour high level scholarship (implying postgraduate studies) at the expense (or even at the exclusion) of undergraduate studies. In this regard, Athens and Berlin are similar – the main differentiating feature only being Berlin's overall emphasis on the relevance of knowledge to society, and therefore education in professional fields of study (as opposed to Athens' primary focus of knowledge for its own sake).

The New York Model university

The New York model university is aptly captured by Kirp (as quoted by Levin 2000, 1) as follows: 'While the public has been napping, the American university has been busily reinventing itself. In barely a generation, the familiar ethic of scholarship – baldly put, that the central mission of universities is to advance and transmit knowledge – has been largely ousted by the just-in-time, immediate-gratification values of the marketplace .... Gone ... is any commitment to maintaining a community of scholars, an intellectual city on a hill free to engage critically with the conventional wisdom of the day.'

In essence, the New York model university is governed by the market forces, which will have a strong bearing on what is presented, how and when. In essence, the New York model university, to a great extent, throws out the traditional notions of both academic freedom for the lecturer and institutional academic self-governance as critical characteristics of universities. In their place come the notions of 'free enterprise' and 'entrepreneurship', as necessitated by the market forces.

However, Bellah (as quoted by Levin, 2000, 1) warns about the New York University model mentality in his words that 'when money takes over politics, only a facade of democracy is left. When money takes over the professions, decisions are made on the basis of the bottom line, not professional authority.'

To some people, the main fuel that propels the New York model university is American capitalism. As Lowe (no date (c), 15) observes: 'when American capitalism became a religion it co-opted religion to its capital intents; comparably, when education became an aspect of life as a whole ... then all life and living had the potential to become an aspect of education.'

The criticisms regarding universities' response to market forces are many and varied. Gray (2001, 9), for instance, refers to Veblen's 'belief that the university of his day has veered off course by falling into the hands of business men and become subjected to the application of business principles and practices that corrupted and distorted the true ends and spirit of an institution that should be dedicated to higher learning *per se*'.

To some, it is not acceptable to reduce people 'to human resources, ideas to property and research to policy' (Lowe, no date (d), 2). Lowe (ibid) goes further to state as follows:

> When the value of an idea is confused with its price, and both are measured in terms of short-term cost-benefit analysis, then the status of the person in the process becomes ambiguous. Is the student a product or a consumer, or, like the spending victims of the entertainment and fashion industries, merely a product who consumes? Is education a manufacturing or service industry? If the proper end of learning is an educated personhood, then its fundamental goals are the development of self-esteem and the fostering of co-operation, not the acquisition of useful information as a commercial end.

This has led to what Redfield (2000, 2–3) refers to as the 'worldly problem of the university' in-so-far as the university must continue to be supported as it pursues its work:

> The worldly problem of the university is this: how is thought to be funded? Universities are not organizations for making money but for spending money – on the purposes for which they are chartered. Some of this money they can earn by sale of services – contract research and tuition – but the truth is, the worst way for a university to acquire its funds is to earn them, precisely because it engages the university with the temptations of the market and thereby threatens its integrity, more than any donor can ever do.

However, given that business and industry have become the main sponsors of research in many universities, the 'acquisition of useful information' for purposes of advancing commercial interests will remain a worthy, desirable and even 'profitable' end for most of research coming out of the universities.

The Calcutta Model university

The Calcutta Model university is aptly captured in the University of Calcutta's prospectus which states, *inter alia*, that the institution must 'function more effectively in the fields of teaching, training and research in various branches of learning and courses of study *and for higher education to meet the growing needs of the society'* (italics mine) (http://www.caluniv.ac.in/university campuses/ university frame.htm).

Conceptually, the Calcutta model university engages in all the activities that other universities do – that is, research and teaching, but in addition endeavours to incorporate community service into the core curriculum. Accordingly, service to the community is rendered during one's years at university as a student, and after graduation. With regard to research, 'action research' is prioritized, while teaching is geared towards producing graduates with professional competencies, ethos and ethics orientated towards serving the community. In this regard, university education is judged to be good mainly in terms of its relevance and application to the problems of society. Overall, therefore, the Calcutta model university justifies its existence 'for the good of the society' whose problems it must address.

Table 3 presents a modified version of Botha's summary of models of universities and their primary characteristic knowledge and knowledge production foci (Botha 2004).

Table 3: Models of universities and university education

Model	Primary focus
Athens	• The pursuance of knowledge for knowledge's sake • Cultivating an educated citizen • Cultivating wisdom
Berlin	• All-round humanistic education • Unity of research and teaching • Transmission of culture • Research in basic disciplines • Academic freedom (i.e. freedom of teaching; academic self-governance)
New York	• Professional education programmes driven by market forces and entrepreneurialism
Calcutta	• Addressing and solving the problems of the community • Emphasis on applied research

Quite importantly, it appears that from early characterisations of university education, its main aims have spanned across Plato's three general aims of education presented above (see Table 2), and these are also in consonance with the University of Bologna criteria given above. Notably, the combination of research and the needs of society, as given in the third criterion – i.e. knowledge for practical ends, encompasses both the New York and Calcutta university types.

THE CHANGING IDEA OF THE UNIVERSITY – AND HENCE THE CHANGING KNOWLEDGE PRODUCTION

By and large, the above university types represent a metamorphosis of the idea of a university – starting from a time when university education focused primarily

(almost exclusively, even) on a philosophical trajectory to the time, nowadays, when relevance to the community and industry, as well as entrepreneurism, have become the main drivers of some universities.

Buchanan (2001, 2) refers to this metamorphosis in the following observation: 'The founding vision of a research university... accommodated a new vision of general or liberal education [which in turn] accommodated a new vision of university involvement in the community... [and] a refined vision of research and education through the creation of a variety of interdisciplinary programs based on the recognition of emerging problems of society and culture – connecting undergraduate and graduate education with emerging research.'

Characteristically, this has meant that the central 'business' of university education, as being primarily 'research' and 'speculative thought', has radically changed – meaning that preparation of students for the labour market has taken precedence over research and speculative thought. In terms of student profiles, this has reflected itself in the preponderance of undergraduate students, and relatively fewer postgraduate students – and hence, a diminished research role – in proportion to the numbers of students and academic staff one finds in a given university. Since knowledge production typically comes from research, and new ways of looking at things come from speculative thought and reflection, there has accordingly been a drastic reduction in innovative thought and research output, as a proportion of the overall numbers of staff and students enrolled in universities. Nowadays, one even hears of the concept of 'a teaching university' – in reference to universities conceptualised only to teach, but not to do research.

Overall, what has happened over the years is that the so-called progressive universities have endeavoured to be at the forefront of knowledge and innovation by, apart from being custodians of old knowledge and traditions, but more importantly, they have been champions and advocates of new disciplines and cross-disciplines, as well as new schools of thought. Of necessity, the idea of a university, for such institutions, has evolved side by side with new theoretical understandings and trends of practice. As Buchanan (2001, 4) observes, progressive universities have over the years done this 'by focusing inquiry on new problems that were often between and outside the boundaries of established disciplines and ways of thinking'.

CONCLUSION

From the information presented so far in this article, it appears that there is *not* only one acceptable idea of the idea of a university – and indeed, one may say there has never been at any time in the history of universities, a time when there was only one idea of the idea of a university. Even the above classifications of universities show unavoidable overlaps in terms of their primary purposes. For instance, the notion of liberal education appears to appeal to the Athens model university, in-as-much as it appeals to the Berlin type university – even if from somewhat different

perspectives. Taking a more liberal definition of 'liberal', even the apparently 'lowest' forms of university education, namely, those whose primary focus is on vocational and technical education, truly liberate the individual from such critical aspects of life as unemployment. Certainly, compared to education in the philosophies and the notion of education for the 'pursuance of knowledge for its own sake', vocational and technical education holds higher prospects for self-employment – and hence, less dependency on the state for one's livelihood. Would it not be justified to refer to this as 'liberal education'?

Accordingly, we should therefore accept the integrity of any of the above university models, and combinations thereof, as legitimate university forms. In other words, whether a given university's espoused primary purpose is to pursue knowledge for its own sake; or to develop the whole person; or to meet some market forces; or to address problems of society; or indeed any combination of these orientations, this in itself does not disqualify any of the above forms from being accorded the status of a university.

With reference to the research function of the university, this function in itself has not changed – i.e. over the centuries and millennia, research and scholarship pursued in universities have served the interests of the main sponsors and supporters – be it state, church, or lately commerce and industry. So, what have changed over the years have been the dominant players – such that nowadays we have combinations of dominant players, and an emergence of new ones.

The other point of departure is that in the early years, students followed their 'masters', in the pursuance of knowledge for its own sake. Repute was a function of the 'master', not the institution. As Atchison (1997, 8) observes, 'in the middle ages, students travelled across the continent to study with a particular teacher with a reputation for excellence ... students followed the teacher rather than the institution'.

Nowadays, the pursuit for qualifications, for their own sake, has far surpassed (even replaced) the pursuit of knowledge for its own sake. Accordingly, instead of pursuing the 'masters' of knowledge and scholarship, students are pursuing institutions which can grant them the qualifications they need to make a decent living. In a sense, then, the purpose of university education has also changed, and this has determined (and continues to determine) both the methodologies of knowledge production, and the outcomes of such methodologies.

As stated above, typically, what we have these days are hybrid universities, combining aspects of all the four university types: Athens, Berlin, New York and Calcutta. Accordingly, the knowledge production that takes place in most universities encompasses the different aspects of knowledge, in different proportions and mixes. In this regard, most universities engage in basic and well as applied research; they offer programmes of study which produce professionals for industry and the labour market, generally – such as lawyers, accountants, teachers, medical doctors, nurses, and others – thereby contributing to the

knowledge base in these fields; some even engage in vocational education and training, thereby producing 'lower professionals', such as artisans, technicians, and others; as well as engage in the service to communities around them.

The above, notwithstanding, there is still a need for each university to articulate what it sees as its primary purpose, even if only for the sake of institutional identity. However, inevitably, this will determine its knowledge base and modes of knowledge production. Most likely, this will be in terms of combinations of the pursuits of knowledge and knowing itemised in Table 3.

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