

# **KNOWLEDGE CONFIGURATIONS, INSTITUTIONAL TYPES, AND INSTITUTIONAL RESEARCH AND ACADEMIC PLANNING**

**23 May 2011: University of Free State**

## **1. INTRODUCTION**

Geagte Vise Kanselier en Rektor, Adjunk Vise Kanseliers, ander lede van die Senior Bestuur van die Universiteit, akademici en dames en here:

Vir my en my gade Adie, is dit n baie besondere voorreg om vanaand saam met julle hierdie geleentheid te kan meemaak. In die besonder omdat ek vir Jonathan Janssen as een van ons land se mees visionere en vernuwende leiers en denkers respekteer. Ek is dankbaar om op n beskeie wyse deel te kan vorm van die groei en ontwikkeling van hierdie Universiteit - n universiteit wat sigself ten doel gestel het om as internasionaal en nasionaal hoogstaande instelling, steeds n instelling in en van die gemeenskap te wees. Terselfdertyd het hierdie Universiteit onder Jonathan Janssen se leiding die voortou in ons land geneem in die jaloerse bewaking van die universiteit as n polities onafhanklike tog meelewende, en krities denkende tog verantwoordelike kennis en wetenskaps instelling.

## **2. CONTEXT OF TOPIC**

The place and role of institutional research and planning can be approached from a number of angles. On a more technical level one can see this function as being responsible for the wide variety of data submissions and other forms of reporting required by the Department of Higher Education and Training from time to time. On a comparative level one can see this section as being responsible for providing secondary analyses on a variety of input and output factors in order to measure the University's performance through appropriate performance indicators. On yet another level one can see this function in a university as being responsible for the support and back up of major initiatives in higher education such as the implementation of the HEQF in terms of the framework recently announced by the CHE's HEQC.

All of these roles and functions are vital and the UFS must be applauded for recently establishing a Directorate for Institutional Research and Academic Planning and for appointing one of South Africa's most eminent experts in this field, Dr Lis Lange as its Director. Nevertheless, in my view the UFS has a marvellous opportunity to lead institutional research and planning into even more principled and fundamental roles than those mentioned thus far.

These roles refer to investigating and analysing the dynamics of knowledge developments and their potential effects on institutional identity and institutional integrity.

**In particular what the effect on institutional identity could be of different knowledge platforms for undergraduate and for post graduate study and research.**

It is this aspect which forms the focus of my address tonight as to the best of my knowledge no Directorate for Institutional Research and Academic Planning at any other South African university has thus far taken this task upon itself.

In exploring the relationship between knowledge developments and their effects on institutional types and institutional identities I will use historical developments in

South African higher education over the past 30-40 years as a springboard for my arguments. These developments are mirrored in similar developments which have occurred in many countries whose higher education systems are also of Anglo-Saxon origin.

### **3. KNOWLEDGE AND INSTITUTIONAL TYPES IN THE 1970s and 1980s**

Apart from the ravages caused by an apartheid based higher education system, the 1970s and 1980s represent a fairly stable period in the arrangement of higher education institutions and their respective knowledge emphases in South Africa. In this period the post school system mainly consisted of the following types of institutions: universities, colleges for advanced technical education which were in the process of becoming technikons, colleges of education, of nursing, of agriculture, and the so-called technical colleges.

In the interests of time I will only cover the linkages between knowledge platforms and institutional identities for universities and technikons. In the case of colleges of education, of nursing and of agriculture these linkages are specialised forms of that for technikons.

- **Universities**

At that point in time universities saw themselves as knowledge institutions which mainly operated in the field of disciplinary knowledge which also formed the basis for their three core functions of learning and teaching, research, and community engagement. Through the many hundreds of years of development of the linkages between knowledge configurations and institutional identities for universities, these disciplines became the basis for the establishment of academic departments which in turn were grouped into faculties representing related disciplinary areas. Senate consisting of the university's professors, acted as the custodian and guardian of the university's discipline based identity.

Academic staff at universities therefore tended to have a very interesting loyalty progression: Their loyalty was first and foremost to their discipline, second to their academic department representing an organisational structure most closely linked to their discipline, third most to their faculty, while their loyalty to their institution featured last. In addition, the vice chancellor in this environment was regarded as the first amongst equals in a collegial management model and certainly had to be one of 'us' – ie the 'us' being those schooled and grounded, with a proven track record, in a recognised academic discipline.

Knowledge progression predominantly occurred vertically within the discipline in terms of mastering increasingly complex theoretical constructs specific to such a discipline. Research mainly consisted of generating new disciplinary knowledge which expanded the theoretical boundaries of the discipline in question.

The undergraduate curriculum was normally constructed in a way so that it peaked in the final year of study with two majors one of which could become the subject of study in the year of honours study. A specialisation area of this honours degree subject would in turn form the component of masters degree study and yet a further specialisation would form the basis for doctoral study.

By and large the various disciplines had through the centuries established themselves and membership to this club of knowledge areas was jealously protected. Emerging fields such as computer science found that establishing an own corpus of

theoretically based knowledge with underlying philosophical points of departure together with respected research journal publications resulting in an acceptable level of citations took quite some time. Even then a fair amount of intellectual pushing and shoving proved necessary before it was admitted into this hallowed company of knowledge fields as many still held that it in fact represented nothing more than some form of applied mathematics with some engineering thrown in.

The university's identity was therefore essentially made up of disciplinary knowledge based sub identities.

In general civil society and business and industry had little to say which could change or shape this identity as they did not think and reason in terms of disciplinary knowledge or related disciplinary theories but rather in terms of every day and real life problems and challenges which needed to be confronted.

The university's identity and character in some respects thus resembled that of a monastery where learned scholars retreated from the world and occupied themselves with theoretical issues related to their discipline which the average citizen would admire but have no understanding of how all of this related to life.

For the university questions regarding relevance and responsiveness were to be measured in terms of disciplinary contexts and not in terms of societal needs and challenges.

This pleasant environment did however include a small but growing issue that spelled some potential difficulty. This issue consisted of the acceptance by universities of also training students for high level professions such as medicine, dentistry, architecture, accounting etc. Universities generally re-assured themselves that this was sufficiently in line with their disciplinary emphasis as some of these professional knowledge areas had over time acquired many of the characteristics of a discipline. In any event they argued, the first year or two of the curriculum was normally discipline based before some more professional and applied knowledge was introduced into the curriculum.

Nevertheless this meant that universities had to get accustomed to the fact that apart from knowledge emanating from the discipline they also had to incorporate knowledge arising from a particular professional and occupational context into their curriculum and thus into their institutional identity.

The establishment of some professional boards or councils in these years and their increasing hold over the shape and content of the curriculum also meant that universities were increasingly faced with the prospect of having two academic custodians in some cases: Senate as well as the relevant professional board. One way in which universities sought to solve this particular problem was to ensure that academics formed the majority of the membership of these professional boards.

- **Technikons**

Technikons on the other hand displayed a very different relationship to knowledge and its configuration into disciplines. They grew from the former advanced colleges for technical education which in turn had their roots in technical and vocationally oriented education institutions. Rather than having their roots in the study of Philosophy and Mathematics as the universities did, their roots can be traced back to the growth of the crafts and guilds and later the Industrial Revolution. Their knowledge base was constituted by the knowledge germane to functioning

successfully in an occupation-usually in the form of some mix of applied and workplace knowledge.

Knowledge progression largely consisted of that required in solving problems and challenges faced in moving to higher and higher levels of occupational complexity, particularly as experienced in the workplace. In this way the curriculum was largely based on problem solving approaches and multi-disciplinary in nature – the disciplines involved, albeit in applied form, being related to the occupational area forming the focus of the study.

In terms of structure and identity technikons initially functioned quite differently from universities. Industry and business involvement, particularly in the design of study programmes, formed one of their organisational and structural cornerstones. Academic staff which had some industry or business experience were preferred to those who did not have such experience. They tended to function in terms of schools rather than faculties, academic boards rather than senates and did not use nomenclature such as ‘professor’ for their staff but rather terminology such as ‘principal lecturer’. Neither did they offer degrees but offered a variety of levels of diplomas. Loyalty trends of teaching staff were somewhat less straightforward and contained a healthy dose of loyalty to occupational areas.

Relevance and responsiveness were mainly measured in the acceptance of their student outputs by industry and business and in their ability to respond to changes in human resource requirements in the work place.

- **Binary system**

The above system, which by the way, still exists in some form or other in quite a few countries in Europe, was clearly the outcome of the role and function of different knowledge platforms in universities and technikons. In this respect these two types of institutions are good examples of divergent institutional types and identities arising from different knowledge configurations forming the base of their academic endeavours.

Generally in this system universities knew who and what they were and technikons knew who and what they were. Institutional identity crises were largely unknown.

Whether good or bad, this relatively clear cut institutional differentiation was not destined to last much longer with profound effects on universities and their institutional identities as well as that of the technikons.

#### **4. KNOWLEDGE AND INSTITUTIONAL TYPES IN THE POST - 1990s**

A number of changes, which on their own may perhaps not have been that decisive but in combination proved instrumental in changing this pattern – not only in South Africa but in many other parts of the world.

- **Public funding constraints**

Increasing constraints in the public funding of higher education meant that funding issues assumed a heretofore unheard of centrality in most higher education institutional decisions. Suddenly academics who had quietly been pursuing their scholarly endeavours were brought face to face with funding formulas which not only rewarded inputs but outputs as well. Increasingly management was forced to move into adopting measures for increasing institutional efficiency or in other words ‘getting

more bang for the buck'. Suddenly management became 'them' and the academics or the 'us' felt alienated by all this fuss about organisational effectiveness and efficiency as if higher education institutions were 'businesses'.

In particular 3<sup>rd</sup> stream income became vital to the expansion and improvement of quality of academic endeavours. This resulted in academics being thrust into unusual roles of marketing their academic products, becoming fund raisers for new research and other academic ventures, and above all understanding that business itself was less interested in how a particular business problem was solved but that it was solved. Most disturbingly for some academics they had to realise that their academic disciplinary jargon cut little ice in these interactions with business and industry who like to call a 'spade a spade'.

In this respect some universities were a bit slow out of the starting blocks compared to some of the technikons which in general had built up much better relationships with business and industry. Nevertheless universities soon learnt that there is no such thing as a 'free lunch' and that business and industry expected to play some part in ensuring that their contributions as part of 3<sup>rd</sup> stream income achieved their purposes.

- **Democratisation of South African higher education institutions**

The fall of apartheid ushered in an era of profound institutional change in higher education in very many institutional aspects. Councils of higher education institutions were reconstituted while many universities re-constituted their senates to include non-academics and academics others than only the professors. In many universities and technikons organised labour became part of official university structures while student representative councils in general became heavily politicised structures spearheading campaigns to do away with anything that was regarded as not consonant with their interpretation of the 'struggle'.

Many of these new role players and decision makers did not have a thorough grasp of the vital role between knowledge and institutional identity in the field of higher education, nor of the pivotal importance of higher education institutions maintaining their academic and scientific integrity and independence. This meant that in many cases fundamental arguments around matters such as these were simply regarded as an unwillingness to accept the inevitability of transformation and as constituting stumbling blocks to institutional democratisation.

Rather than being at the forefront of incorporating changes in the world of knowledge (mainly for universities) and in the world of work (in the case of the technikons) into their academic activities in ways which would support their institutional identities, universities and technikons for many years became embroiled in one initiative after the other aimed at transforming themselves organisationally and socially.

- **Technikons wishing to become universities of technology**

The post-1990 period was also characterised by increasing pressure from the technikons to become universities of technology. A variety of arguments were put forward in this regard but few of these explored the crucial relationship between knowledge configurations and institutional types or identities ie can one successfully assume a new institutional identity on an unchanged knowledge platform?

It was argued that technikons belonged to the previous apartheid era and that in any event the name was not used anywhere else in the world. It was argued that

technikons in their existing format were out of tune with their counterpart institutions in countries such as the UK, Australia and New Zealand and that they would not come into their own in terms of attracting greater numbers of students except if they also were allowed to offer degrees, right up to doctoral level, instead of diplomas. This of course meant including research as a core function of the technikon.

Unfortunately debates on these matters mostly took place within a context of perceived class and hierarchical distinctions between universities and technikons. Business and industry did not help fundamental debates along by arguing that technikons needed to be strengthened, that their outputs were what society really needed and that making them universities of technology would assist in this respect.

The question of what kinds of knowledge configurations can lead to meaningful post graduate study up to doctoral level and which ones can form a basis for research outputs which can stand their own internationally, and which ones cannot, was not debated thoroughly. The ill fated attempt to provide for a specific technikon or university of technology subsidy earning research output in the form of 'artefacts' was dropped after a few years as it simply proved untenable.

In any event at a stroke of a pen in 2002 all technikons were declared to be universities of technology even though some of them had not produced a research article publication for years nor had their graduation ceremonies ever been graced by a doctoral candidate's citation being read as part of being awarded such a degree.

The unfortunate outcome of this declaration, when studying the programme and qualification mixes of universities of technology, has been an inevitable widening and generalisation of the knowledge relating to occupational areas forming their knowledge basis. The traditional direct and specific occupational focus of many former technikon programmes has thus been diluted somewhat in favour of a greater amount of generalisation both in terms of specific occupations and in terms of applied knowledge gradually becoming somewhat more theoretically based.

The recent suggestion that all doctor of technology degrees offered by universities of technology should be renamed as Ph Ds also needs much more thorough analysis. It is by no means a foregone conclusion that the existing knowledge base used by universities of technology can in fact lead to a doctoral degree in the philosophy underlying a particular discipline- which is what a Ph D represents.

Declaring technikons to be universities of technology has been the cause of a considerable amount of identity confusion amongst some of them with some slowly beginning to realise that calling yourself something and being that something had profound implications for one's knowledge platform.

- **Changes in knowledge configurations**

The post-1990 period also witnessed rapid changes in knowledge and how it is constructed. One of the chief proponents of a new type of knowledge termed Mode 2 knowledge in contrast to discipline based knowledge which as termed Mode 1, was Dr Michael Gibbon, former General Secretary of the ACU.

Mode 2 knowledge, he argued, differed from Mode 1 knowledge in a number of respects such as: it typically arose from trying to solve a specific problem in society; while using discipline based knowledge the knowledge created through solving such a problem was often multi or interdisciplinary; it was usually generated by a team of researchers representing a variety of disciplines; and its value or usefulness was

normally assessed by the users of the proposed solution rather than by discipline based peers.

While this distinction initially held much promise for institutions such as the universities of technology it soon proved that generating effective Mode 2 knowledge was very difficult if not well nigh impossible without a sound disciplinary base. This would then require the universities of technology to move towards the incorporation of a greater disciplinary base as their knowledge platform which in turn would lead them even further into academic drift towards becoming universities as generally understood.

Apart from this development this period witnessed the rise of many new combinations of knowledge such as medicine and ethics (philosophy) or business and ethics, genetics and anthropology, mechanical and electrical engineering in the form of mechatronics, linguistics and computer science etc. In addition areas of study such a natural resource or conservation management, environmental chemistry, the movement of people or populations, etc emerged which have defied strict disciplinary classification.

Most universities have failed to engage fundamentally with the effects of simply adding these knowledge areas to the curriculum on their institutional identity- for example, should these new knowledge areas be introduced on both undergraduate and post graduate levels or not? If only on undergraduate level how would these study areas link up with pure discipline based study areas from the honours level upwards?

- **Greater calls for relevance and responsiveness**

Calls for greater levels of public accountability by higher education institutions were accompanied by even stronger calls for higher education institutions to become more relevant and more responsive to societal needs and challenges. The Commission on Higher Education even included responsiveness as one of its three so-called pillars of a new higher education dispensation together with massification and partnerships or collaboration. Business and industry were particularly vociferous in lamenting the mismatch between higher education graduate outputs and the needs of the economy- so much so that the Council on Higher Education felt compelled in the early 2000s to arrange a two day workshop between higher education and business and industry in an effort to find solutions to this problem.

Treasury in their consideration of 3 year medium term expenditure framework budget requests from higher education institutions joined in and increasingly required evidence of 'value for money' provided by universities in the form of their outputs. The contribution levels of universities and universities of technology to the goals set by successive Governmental national agendas started coming under increasing scrutiny. Provincial Governments likewise queried the constructiveness of the role of universities in supporting regional development agendas.

Universities in contrast to universities of technology responded in interesting ways. Apart from making serious efforts to talk to and especially to listen to the business community, many started evaluating the usefulness of their undergraduate curriculum. As a result many introduced degree study in what would be considered more applied areas such as translation, media studies, journalism, hospitality, tourism, sport management etc.

Very often this knee-jerk reaction was not contextualised properly in the existing knowledge platforms of these universities and resulted in knowledge platforms for undergraduate studies being a mix of discipline based and application based knowledge. In this respect many of these universities on the undergraduate level at least, actually moved towards the knowledge space occupied by the universities of technology.

This raises the question of how significant should a move away from a pure discipline knowledge based curriculum to a knowledge base informed more by vocational contexts be before such a university in essence becomes a university of technology despite it not calling itself such?

Obviously the reverse also holds namely how significant should a move away from a vocationally based knowledge platform to a discipline based knowledge platform be before a university of technology in essence becomes a university despite it not calling itself such?

What should the University of the Free State do in reaction to calls for becoming more relevant and responsive? It should certainly respond but do so very circumspectly. One response is to strengthen its community engagement strategies and initiatives considerably. Another way is to ensure that its research agenda, even while emphasising blue sky research, does so in areas of critical national and regional importance.

If UFS wishes to introduce some of these more applied undergraduate degrees in a reasonable number it should do so on the basis of a policy or strategy which clearly sets out the parameters for UFS' undergraduate knowledge base in terms of pure disciplines, professional orientation and applied study. It should in advance be clear as what post graduate study opportunities would exist in these areas or not and whether these more applied knowledge areas would in fact lead to fundamental research as envisaged by the University.

- **Internationalisation and institutional rankings**

The internationalisation of higher education and the emerging importance of rankings of universities have not made things easier for a university such as UFS. There are a few reasons for this.

The major thrust of internationalisation often is at the post graduate and the research level. It is true that a fair amount of student exchange takes place at the undergraduate level but quite a bit of it is in the form of short term exchange programmes. Nevertheless, South Africa has indeed seen an increase in the number of undergraduate students who come from other countries, particularly from other countries in Africa to follow a full degree programme.

Allowing the undergraduate study knowledge base to drift too much away from a discipline based one to one informed by the vocational and occupational needs of society will change the knowledge base on which post graduate study and research builds. This could then have negative consequences for internationalisation at the post graduate level which would need careful analysis.

In addition international rankings tend to give more weight to outputs emanating from post graduate study and research than to outputs emanating from undergraduate study. At the risk of over simplification one can say that international rankings largely compare universities at the post graduate level. If a university thus wishes to improve

its overall international ranking it has little choice but to improve its post graduate and research systems and outputs. Doing so, however, means that such a university cannot afford to compromise on its discipline based knowledge base for this level of study, and by implication for its undergraduate studies as well.

## **5. CONCLUSION**

In this address I have tried to show that the scope and functions of institutional research and planning units such as DIRAP are a far cry from mere quantitative data analyses and the construction of comparative performance indices. In fact the most crucial function of such a unit in a university such as UFS is to develop an approach towards determining an appropriate knowledge framework for the university's three core functions and specifically for its undergraduate and post graduate study. It is this knowledge framework and how one reconciles the demands for increasing responsiveness and relevance, mostly in terms of the vocational needs of society, with the intrinsic nature and characteristics of knowledge itself, which is fundamental in determining what one's institutional identity in reality and not in name is.

In short:

- How will UFS accommodate a knowledge platform at the undergraduate level made up of disciplinary knowledge, professionally oriented knowledge and applied and vocationally oriented knowledge and what would its relationship be to the knowledge platform for post graduate study?
- How will the University manage an upward creep of a more diffuse knowledge platform from undergraduate study to honours study and later to even higher levels of post graduate study?
- Should the knowledge platform for the honours year become similar to that of undergraduate study while the knowledge platform for the masters and doctoral levels be maintained as a disciplinary based platform?

Such a comprehensive knowledge framework should form the basis of UFS' academic and institutional identity.