The Engaged University

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"Universities might have lost their monopoly of knowledge, but in the end the purpose of the university still remains knowledge. Our understanding of knowledge and its uses has changed, mainly as a result of globalization, and universities have to change their functions in order to respond to those social pressures that have been created" (Barnett in Jarvis, 2001:139).

Samevatting

Hierdie artikel ondersoek die maniere waarop 'n universiteit betrokke kan wees by sy omgewing. Hierdie omgewing word hoofsaaklik gevorm deur regeringsorganisasies, besigheid, industrie, en sosiale gemeenskappe. Die noodsaaklikheid vir groter betrokkenheid by gemeenskappe word beïnvloed deur die behoefte aan ontwikkeling, die skep van welvaart en die oplossing van tegnologiese probleme.

In hierdie artikel wys die skrywer op die invloed van die kennisekonomie, globalisering en die sogenaamde korporatiewe universiteit op die wyse waarop die universiteit by sy omgewing betrokke kan wees.

1. Introduction: higher education and the emerging knowledge society

For the last 30 years, higher education institutions have experienced worldwide dramatic changes. One such change has to do with the changing image of research and its contribution to knowledge-based professions and income for the institution (Bawa & Mouton, 2002:327). This has contributed to the development of a knowledge society, which is characterised by two aspects: **Intellect** and **finance**. These two aspects contribute to the important role that knowledge workers (read academic staff) are playing in universities. The reason for this is that knowledge workers are the creators, manipulators and suppliers of the stream of information that make up the knowledge society[1] (Jarvis, 2001:39).

The importance of knowledge lies in the fact that it affects "the rise and fall of professions" and that it can influence social classes, regions and

1 This society follows on the post-industrial and post-service societies.

even nations. Knowledge, as the university's invisible product, has a powerful influence on culture (Kerr, 1996:xiv). But, universities are also influenced by developments in the knowledge society. The knowledge society impacts on universities and the way in which they are executing their core assignment of knowledge production (research) and knowledge transmission (teaching / learning). The knowledge economy requires more and more highly educated, but flexible workers, committed to life-long learning (Goedegebuure & Van Vught, 2000: 13). Universities align themselves to knowledge generators through contract research (knowledge production and extension) and co-operative agreements (knowledge spin-in and spin-offs). As a result, universities are continuously seen as "warehouses" or "supermarkets". They produce material that could be used by knowledge producers outside the universities (Moja & Cloete, 2001:247). Higher education is now regarded as "big business" (Goedegebuure & Van Vught, 2000:13). Universities moved from institutions "seeking the truth" to institutions "packing knowledge for sale". With this knowledge has become a commodity – knowledge is now a trademark. You can now "buy" or "sell" the knowledge needed to accomplish a task. In addition to the economic value of knowledge, it is produced by experts located across a range of different departments and placed within different collaborative networks. This gave rise to the so-called "multi-university" (Kerr, 1996) and Mode 2 Knowledge (Gibbons, 1998). A major characteristic of this multi-departmental and interdisciplinary approach is that the knowledge production (in all its formats) is increasingly becoming interdisciplinary in its quest to address complex technological, cultural and social problems (Ensor, 2002:277).

The knowledge society and its accompanying knowledge production confront the university to move out of their comfort zone: universities should become more engaged with the knowledge society and its requirements. This new requirement does not mean that universities have to take on new functions – they should rather revise their functions in the context of a changing society. To rephrase this remark: the core functions of a university, that is teaching / learning and research, should be practiced in a changing society. The latter is mainly characterised and dominated by the global economy.

This article will outline the following important features of an engaged university. These features are:

- Knowledge in a changing environment
- Research
- The global economy
- The corporate university

Before attending to these features, we first need to ask: "What is an engaged university?"

2. What is an engaged university?

Throughout the world universities are known for two core functions: **Teaching** and **research**. This is being regarded as the communality of universities regardless the country or focus of activities. (Occasionally the focus could be more on teaching than learning, or undergraduate teaching rather than post-graduate teaching, but in essence are teaching and learning the core of the academic enterprise.)

The core functions of a university have taken on many characteristics. Castells (2001:206 - 209) says that universities have four distinct characteristics:

- The formation and diffusion of ideologies is a fundamental role of universities in spite of the ideology of their ideology-free role.
- Universities have always been mechanisms of selection of dominant elites.
- The most obvious functions of universities are to generate new knowledge.
- The professional universities have now the function to train the bureaucracy (skilled labour force).

He (Castells, 2001:212) remarks that the real issue is not so much to shift universities from the public arena to secluded laboratories or to capitalist board meetings, as to create institutions solid enough and dynamic enough to stand the tensions that will necessarily trigger the performance of their functions. The functions are unchanged – but the context of the functions has changed. For example, Castells (2001:209) makes the important remark that the science university got a major boost from World War 2 and the Cold War when it was required from universities to serve the need of the military (Castells, 2001:209). Thomas (2000:53) has the same perspective. He refers to the engineering practice prior to World War 2. During that period, engineering was largely rule and experienced based. This changed after World War 2 due to the defeat of Germany and Japan and especially in the pursuit of the Cold War:

> The contribution of science and technology to military success elevated the commitment of the U.S. to promoting science and technology to unprecedented levels.

What is learnt from these experiences is that the intellectual / knowledge-driven skills of universities are used to address the needs of business and industry. The value of this new development is that societal problems are requiring new answers – universities can through their knowledge-driven research activities address these issues. Although much research is stimulated today through so-called “real world problems”, none of these problems are addressed by universities free from an academic perspective. In addition, universities also benefited from this problem through the

growth in inter-disciplinary sciences. Scientists from various fields of study are addressing problems as a team. It is fairly common to have statisticians, sociologists, lawyers, economists, etc. as part of the multi-disciplinary research team. A key element in the development of universities as centres of discovery and innovation is the cross-fertilisation between different disciplines (including the humanities) together with the immediate needs of the economy (Castells, 2001:216). This new approach in science, together with the developmental needs of the South African society require that higher education should be responsive and engaged.

All these new developments signify the notion of an engaged university. A workable definition of an engaged university is that of Rolf Stumpf. In his inaugural lecture as Vice-Chancellor of the University of Port Elizabeth, he remarks on the engaged university. He says:

> Increasingly society wants to know what contribution higher education institutions are making towards social development and economic growth. Countries such as Sweden, Spain and Finland are giving birth to a fundamentally new relationship between the university and the city, and between the university and the region – a relationship revolving around the axis of local and regional socio-economic development and the university's knowledge contribution to such development (Stumpf, 2002: 3).

Against the background of these remarks, the author would like to identify the following characteristics for an engaged university:

- The core functions (teaching / learning & research) are knowledge-driven and academically focused.
- The context of the core functions of a university is no longer science for the sake of science, but the challenges and needs of government, business, industry and developmental communities.
- Although the context for university education has changed, the fundamental value of universities (teaching / learning & research) hasn't changed.
- Universities no longer isolate themselves ("the ivory tower") from the world of work within which their students will work.
- New knowledge is created through addressing the needs of the society.
- The needs of society sharpen the academic theories – a good theory is always implementable.

Universities are part of social communities – their staff and students are coming from various social backgrounds. Engagement is not limited to "upliftment" (in the context of social well-fare). Engagement means to integrate your core functions into the broader society. This approach has two benefits. Society is enriched through the core functions of the

university and the contents of the core functions of the university is broaden through the interaction with the community at large.

On the basis of these remarks, we shall now look at knowledge in a changing environment.

3. Knowledge as engagement

3.1 A view on knowledge

Jarvis (2001:12) argues that there are seven kinds of knowledge:

- Myth and legend
- Knowledge implicit in everyday natural language
- Religious knowledge
- Mystical knowledge
- Philosophic-metaphysical knowledge
- Positive knowledge
- Technological knowledge

Knowledge development and transmission have three conditions: rationality, empirical and pragmatic (Jarvis, 2001:41). These conditions are a result of paradigmatic developments in the knowledge society. For example: The medieval universities were at best institutions of teaching and scholarship. These universities were characterised by their offering of the **trivium** (language, rhetoric, logic) and **quadtrivium** (mathematics, music and astronomy). The Industrial Revolution and the Enlightenment placed emphasis on empirical knowledge discovered through scientific method. As a result rational thought became the basis of philosophical tradition. Gradually, the accepted foundations of knowledge shifted from **received** to **empirical** and **rational knowledge** (Jarvis, 2001:11). A further development was the idea of **useful knowledge**, which started through the development of land grant universities in the USA and **practical knowledge** in the urge to make theoretical knowledge more environmental friendly. The latter is especially important in the expanding role of universities within the knowledge society. **Practical knowledge** could be defined as a combination of different forms of knowledge. Jarvis (2001:49) identifies the nature of practical knowledge as:

- Learnt and legitimated in practice situations
- Practical and not merely the application of some pure academic discipline to practical solutions
- Theoretical in that it contains content knowledge
- Dynamic
- Integrated rather than divided up by academic discipline

- Not an academic discipline in the same way as the sciences or the social sciences
- Subjective and not value free

The idea of practical knowledge is complimented by Gibbons' distinction between Mode 1 and Mode 2 Knowledge. Gibbons used these two modes to explain the different ways in which knowledge is formulated. Gibbons (1997:21) defines Mode 2 Knowledge as knowledge produced in the context of application, transdisciplinarity, heterogeneity and organized diversity, enhanced social accountability and broadly based systems of quality control. In a knowledge society, knowledge should be at the focal point for national growth. Knowledge is influencing all walks of life and will grow even more in importance as economical needs increase (Kerr, 1996: 66ff). For the enhancement of an engaged university "practical knowledge" in the context of Mode 2 Knowledge will be particularly useful.

A useful addition to Mode 2 Knowledge is the notion of technology as science. Technological science has to do with **knowledge about technology**. It differs from science in that technological science has to do with the **development of knowledge** and not the collection of knowledge. Schuurman (1997:43) provides an overview of the development of science and technological science:

Science	**Technology**
Existing knowledge	Existing product or process
↓	↓
Via hypothesis and reflection research	Via recognition of needs or market
↓	↓
Hypothesis	New innovation or invention
↓	↓
Via logic and mathematics	Via feasibility study (technological science)
↓	↓
Falsifiable deductions	Adequacy of the design; Testing
↓	↓
Via experiment	Via prototype / development
↓	↓
Confirmation	Production
↓	↓
Via communication	Via public acceptance
↓	↓
New knowledge	New product or process

The important perspective brought forward is that engagement shaped knowledge to adapt to a new environment. This can be illustrated by the way in which knowledge can contribute to research capacity-development.

3.2 Methodological matters in knowledge as capacity-development

Grassroots participation has become an extremely important research paradigm in engaging knowledge with societal activities. According to Muller (1996:111) it is a style of research that sets itself sharply against other forms of research. He advocates a "participatory policy research". He argues that participatory is different from representative. The core of this research paradigm is a research process and a resulting theory that are an expression and an elaboration of progressive popular feelings rather than abstract frameworks imposed by intellectuals on the messy complexity of lived experience.

Although the above-mentioned research paradigm has as goal a democratic and empowering process, a major problem with this paradigm is that one has to accept the fundamentals of the research object before one can evaluate this object. This viewpoint undoubtedly leads to a lack in critical distance between the research subject and the research object. Although the new hermeneutic advocates that the "text" and the "reader" should become one and the same, one cannot critically evaluate the research object without exposing one's own paradigm (thought context). It has been proven over and over again in the theory of science that every researcher has his / her own methodological pre-hypotheses and value statement. These pre-assumptions should not be identified as similar to prejudice.

Next to participative research one should also identify collaborative research. As in the case of participative research, the intention of this research paradigm is reliance on team efforts opposed to individualistic research efforts. Within a context of capacity-building collaborative research seems to be particularly timely, since an era of competitive and individualistic learning is being left behind and an era of interdependence and mutuality is being entered.

At the foundation of a developmental research paradigm should be an action-development approach. Here the CRASP model of Zuber-Skerrit is a valuable model in drafting various stages of an 'ideal' developmental research. The action research model of Zuber-Skerritt (1991:12 - 15) can be explained as:

> **Critical** and (self-critical) collaborative enquiry by
> **reflective** practitioners being

accountable and making the results of their enquiry public,
self-evaluating their practice and engaged in
participative problem-solving and continuing development.

This design and methodology will expect the researchers to approach the research in the following way:

- **Practical**. The results and insights gained from the research are not only of theoretical importance to the advancement of knowledge in the field, but also lead to practical improvements during and after the research process.
- **Participative and collaborative.** The researcher is not considered to be an outside expert conducting an enquiry with 'subjects', but a co-worker doing research with and for the people concerned with the practical problem and its actual improvement.
- **Emancipatory.** The approach is not hierarchical; rather, all people concerned are equal 'participants' contributing to the enquiry.
- **Interpretive.** Social enquiry is not assumed to result in the researcher's positivist statements based on right or wrong answers to the research question(s), but in solutions based on the views and interpretations of the people involved in the enquiry. Research validity is achieved by certain methods.
- **Critical.** The 'critical community' of participants does not only search for practical improvements in its work within the given socio-political constraints, but also acts as critical and self-critical change agents of those constraints. These participants change their environment and are changed in the process.

4. The corporate university

A new trend in knowledge engagement is **corporate universities.** A corporate university has three possible interpretations: The one definition is a university becoming more like a corporation. The second definition is corporations running educational and research programmes but calling themselves universities (Jarvis, 2001:97). The third definition is a corporate university within a university (Jarvis, 2001:105).

Corporate universities are a growing phenomenon in higher education. **Universities as corporations** tend to be more business-like. Business plans, credit, debit, debt, economies of scale, supply and demand, etc. are all examples of such universities. **Corporations as universities** are

growing in popularity. The focus of these institutions is to deliver on site education enriched by industrial and business experience. The growth of these institutions is motivated by, amongst others, the frustration that universities do not deliver employees ready for the world of work and that universities' curricula and research programmes are still too much theoretical and removed from what is happening in the real world. In addition, the quality of many academic programmes as well as their appropriateness for the world of work is questioned. **Corporate universities within universities** maintain the traditional understanding of a university, whilst certain activities of the universities are practiced according to the notions of a corporate university.

There should be no doubt that the examples of universities becoming more like corporations are growing. Frans Leijnse (1999:10) talks about "from education factory to knowledge enterprise". Another perfect example is the book by Burton Clark on 'Creating entrepreneurial universities' (1998). These new developments resulted in what is called the 'hybrid university'. Mouwen and Bijsterveld (1999) argue that the introduction of a market culture within the classical concept of a university asks for a new role for universities and new understanding of what the functions of a university are.

A unique kind of corporate university is the so-called **entrepreneurial university**. An entrepreneurial university is driven by profit. It differs from an innovative university where the focus is on new / creative institutional and programme developments (Snyman, 2002). Clark (1998:5) identified five characteristics of an entrepreneurial university:

- A strengthened steering core
- An expanded developmental periphery
- A diversified funding base
- A stimulated heartland
- An integrated entrepreneurial culture

He says of an entrepreneurial university:

> An entrepreneurial university, own its own, actively seeks to innovate in how it goes about in business. It seeks to work out a substantial shift in organizational character so as to arrive at a more promising posture for the future. Entrepreneurial universities seek to become stand-up universities that are significant actors on their own terms. Institutional entrepreneurship can be seen as both process and outcome (Clark, 1998:4).

In **assessing** the notion of a corporate university, one important lesson to be learnt is that universities should be more efficient in business terms. In

meeting business challenges, these universities need to avoid (horizontal and vertical) organisational fragmentation and the balkanisation of the knowledge production process. Universities should have an effective communication system and a shared vision. Universities should understand the changing environment and adapt to it in order to be competitive in the market needs (Van Vught, 2002).

One can appreciate corporations that are involved in higher education as corporate universities. Jarvis (2001:104), however, is concerned that the corporations as universities are neglecting research. Research in the traditional sense is still excluded from the activities of the corporate university. Corporate universities should be concerned with operational competence as knowledge: pragmatic, outcomes-orientated, concerned with transferability of procedures, experiential, strategic, economic, organizational and aimed at better practical effectiveness. They are not concerned with knowledge that are disciplinary, prepositional, seeking truthfulness and cognitive (Jarvis, 2001: 123).

It seems as if the main function of a corporate university is rather to create a learning organization. It should be valued that the corporate university also challenges the traditional curriculum – it must fit the needs of the workforce. Learning is more important than teaching (Jarvis, 2001:119). On the basis of this, he arrives at four characteristics for a corporate university (Jarvis, 2001:117):

- Building a competency-based training curriculum for each job.
- Providing all employees with a common vision of the company.
- Extending training to the company's entire customer / supply chain.
- Serving as a learning laboratory for experimenting with new approaches and practices for the design and delivery of learning initiatives.

In addition he formulates seven functions for the corporate university (Jarvis, 2001:118):

- Teach corporate culture
- Foster cross-functional skills
- Utilize technology-based training
- Cut cycle times
- Operate training as a line of business
- Educate outsiders
- Develop partnerships with traditional universities

One cannot avoid the reality of the corporate university. As stated, this kind of university brings the academic activities in close contact with the

needs of the working place. Academic activities can therefore enrich the world of work. It should be appreciated that universities are becoming more effective in their managerial approaches and interaction with business and industry. Universities should, however, be careful that business principles would not be more important than academic paradigms. To be engaged with your own environment and the environment of the world of work doesn't mean that you have to loose your own unique characteristics and take on features that doesn't belong to this kind of life form. Engagement rather means to take the unique characteristics of an institution and interact through them (the characteristics) with other life forms. In the process the fundamental principles of the life form are not changed but the way in which the foundations of an institution are practiced, is changed.

5. The influence of the new global economy on the engaged university

5.1 Higher education in the global economy

Castells (2001:2,3) says that the new global economy is a combination of three interrelated characteristics that cannot function without each other:

- It is an economy in which productivity and competitiveness are based on knowledge and information.
- The global economy does not mean that the entire world is one single economy. The global economy has the capacity to work as a unit in real time on a planetary scale.
- This capacity is technological, organisational and institutional.

A key characteristic of the new economy is that it is organised in networks throughout the world (Castells, 2001:10). The emphasis of this new economy is on knowledge, technology and networks. Through its knowledge and technological activities, higher education cannot avoid the global markets. It cannot be denied that the centrality of knowledge to globalisation has contributed to the emergence of new paradigms and new social relations for the production and dissemination of knowledge (Moja & Cloete, 2001:246). In return, globalisation demands networking – something that is growing at many universities around the world. Networking is of particular importance for research. Castells (2001:218) says that research must be connected both to the world's scientific networks as well as to the specific needs and productive structures of the country. These activities will influence the scientists at universities: "Science and technology are not embedded in machines, they are embedded in people, in minds, and minds are usually connected to bodies" (Castells, 2001:9).

No university can be understood free from a global context. Higher education *is* now a global activity. Therefore it cannot be denied that globalisation will have major influences on the engagement of universities. In the global context, it is an acknowledged fact that the various disciplines in the *universitas* of knowledge can play an enormous role in the development of communities. Since the dawn of mankind knowledge has been responsible for the development of people and society.

Developments in the global context have significant implications for institutions of higher learning. South African institutions should be aware of the following:

- There is a shift of emphasis away from pure knowledge (science for the sake of science) to a more market-driven education. Knowledge should be applicable in both the financial markets and the rural areas, the boardroom and the community.

- In the past, South African scientists were more engaged in the problems of Europe and America than those of Africa. But, Africa's problems cannot be addressed free from the global context. What is happening on the stock exchanges impact on the African continent. Currently, industrialised countries (G 7) are moving forward to set plans in action to address Africa's problems.

- In every society a balance should be struck between a demand-led and an opportunity-driven approach. This will influence the need for certain fields of study more to a greater extent that others.

5.2 The engaged university in the context of Africanisation

The birth of the new democracy led South Africa back to the international community. Very soon it became clear that participation in the activities of the international community does not depend on the moral status of a country but on the active participation in a new world order. South Africa, as part of the African continent, realises that internationalisation cannot bypass the African continent. Yet, this continent will be swamped with the values of the global society and the ethos of the African continent will be ignored unless Africa gives meaning to its role within the global society. It is for this reason that the author favours the idea of the African Renaissance. The philosophy behind this Renaissance is that for Africa to be part of a global world order it should start off by revisiting its own values, culture, customs, language, etc. and to assess how the African ethos fits into the global context, but also how the African ethos can influence the globalisation process.

Higher education cannot overlook these circumstances and developments. The globalisation of South Africa runs through the African continent. What happens to Africa will impact on South Africa. Since African students (especially from the SADEC countries) study increasingly at South African institutions, South African institutions should realise that these students should be empowered to take the skills associated with globalisation and internationalisation back to their communities. But, exposure to the global village does not mean that the African ethos could not help shaping the global image. It is in this context that *Ubuntu* should be integrated with all activities to influence the students' understanding of the global village and therefore be part of the global vocabulary.

To be engaged in the global society, higher education institutions should revisit their "institutional ethos". The concept "ethos" could be defined as the core characteristics of an institution. Ethos influences therefore the way in which activities are undertaken (Lategan, 2000:5). Numerous examples of components of the ethos of a university could be listed. Some examples are:

- Staff
- Students
- Academic culture
- Academic freedom and autonomy
- Benchmarking
- Community services
- Research
- Academic Plan
- Institutional diversity
- Institutional culture

Within the context of Africa, there is a specific ethos that should be attended to. In February 2001 the Association of African Universities (AAU) declares that **African universities**[2] needs to be revitalised. They denote a particular role to universities in addressing national **political** concerns such as democracy, human rights and poverty. African universities also need to be engaged in **social** problems such as greater access for women to universities, their employment as academics and

2 The notion of an African university has three possible interpretations. Firstly, it has a geographic meaning (it is a university in a specific location). Secondly, it refers to institutional systems in a country / continent in comparison to other systems. For example, technikons are a unique South African system while a community college is predominantly an American invention. Thirdly, it refers to the ethos of an institution. African institutions will have a different history and institutional culture comparing to other systems.

management staff and the strengthening of curricula on gender studies. The concern is also raised that Africa's problems can only be solved unless Africa is on the forefront of education. No other university system can address the problems of Africa in the same way as African universities:

> To a greater degree than ever before, African universities must renew their commitment to helping Africa find effective solutions to its perennial problems of poverty, hunger and disease. They must, by their research and teaching, strengthen their contribution to improvements in food production and distribution, disease control and health service delivery."

This view is complimented by a report compiled by the AAU and World Bank Report (1997), which states that the university in Africa plays a more important role than in any other region. The universities in Africa host the bulk of skills, research capability and technical expertise. African universities are also virtually the only institutions with the capacity to multiply national leadership and management capacities. The engagement of universities in Africa will therefore differ from universities anywhere else.

> For the immediate future, African universities will continue to be the principal producers of national political officials, public administrators, business managers, secondary school teachers and civic leaders.

5.3 When is a university globally engaged?

It is clear that internationalisation entails more than a fashion within university administration. Internationalisation runs through the learning / teaching, research and community services of the institution. In the curricula, internationalisation is reflected in the theory, handbooks, problem-solving, comparative studies, etc. In research, internationalisation is found back in the global perspectives highlighting the research problem. In community services, international perspectives should be used to seek solutions to the social issues, which need to be addressed.

Internationalisation in the core activities of the institution boils down to have **one integrated perspective, compiled of numerous views,** on the activity. This approach is a compromise between two perspectives found back in the internationalisation debate. The one perspective reads that internationalisation entails one culture only (example, Ronald Reagan) while the other perspective says that internationalisation is characterised by numerous perspectives (example, Bill Clinton). The perspective that should be advocated is that from an institution's own national diversity and the diversity amongst the international community with which the institution is interacting, an integrated focus should be formed.

The **diversity** of institutions and the effect on their activities, is an increasing tendency in the globalisation of (higher) education. Institutional diversity does not mean that everyone does everything or the same thing in a similar manner. Diversity is supported via curricula choices, learning cultures and a learning organisation.

Characteristic of internationalised higher education institutions is the impact of environmental issues such as the ecology, dependency on sources and organisational structure.

5.4 The need for international co-operative engagement

For an institution to be part of the global community, it should actively engage with communities outside the national context. It is here that international co-operation comes into play. In an academic institution international co-operation should straddle the core activities of the institution. International co-operative engagement also has the meaning of bringing an institution's activities and inputs to the attendance of the international community. Important in the context of international co-operation, is the partners with whom the institution is co-operating. The golden rule is to choose partners, which fit the profile of the institution and its related activities.

For any higher education institution to participate in the global community, the following characteristics will be of extreme importance for South African higher education:

- an African university functioning within the international context;
- programme offerings relevant to the needs of academic, community and economical development;
- teaching / learning and research programmes with an international character and accredited by peer institutions in the international community;
- career-oriented undergraduate programmes;
- emphasis on (contract) research and postgraduate programmes; and
- maintenance of academic freedom and autonomy.

6. Conclusion

It is evident that the university has no other option than being engaged. This engagement is influenced by social, political, economical, industrial,

technological, global, governmental, etc. events. Although the university needs to be engaged, the guiding principle should always be its core functions, which are teaching / learning and research. With this is meant that universities can only be engaged through their core activities. Engagement is classified by knowledge activities. The university cannot be engaged outside its knowledge assignment. The figure in Appendix 1 illustrates this engagement.

To be an engaged university, calls for identifying the areas in which a university should be engaged:

- The curriculum is a major force to accommodate the spin-ins from government, business and industry. Through service learning students can be involved in different communities. A responsive curriculum is a sign of higher education's accountability to the needs of society.

- Engagement doesn't mean that theory-building should be neglected and all attention should be paid to the transmission of information only. No knowledge enterprise can exist without developing knowledge itself. For this development knowledge is a prerequisite.

- Engagement means a tandem relationship between universities and government, business and industry. Where industry needs knowledge to make products more marketable, universities needs to understand a problem. Industry can assist universities in understanding a problem. In return, universities can equip industry to solve their needs for marketable products.

- Knowledge engagement should be driven by the need for relevant programmes and cost-effectiveness. Engagement does not imply that a university should be a "soup kitchen". Engagement simply means that academic knowledge should be to the benefit of society.

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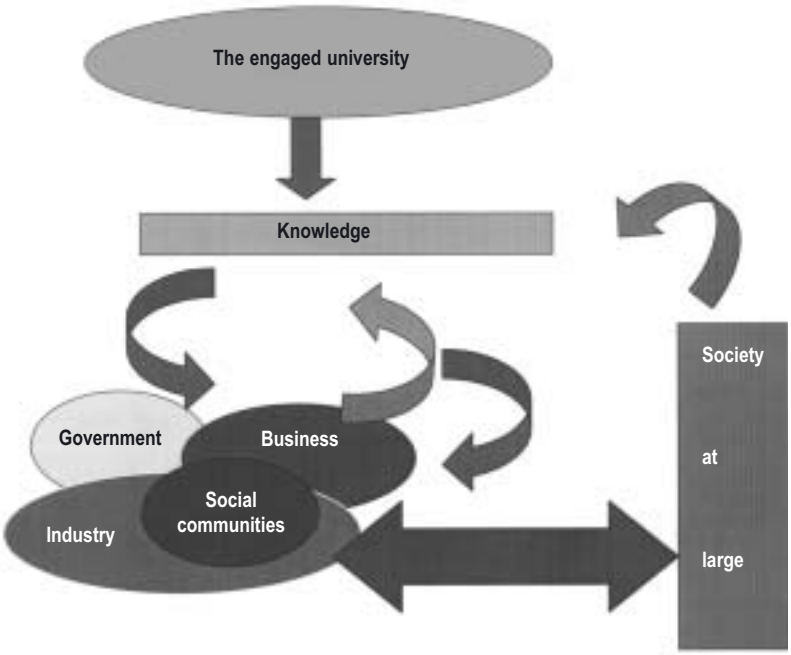
Appendix 1


The engaged university
Knowledge
Government
Business
Social communities
Industry
Society at large