A KNOWLEDGE-BASED SOCIETY NEEDS QUALITY IN HIGHER EDUCATION

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Abstract

The model of a "knowledge-based society" represents an ideal towards which the whole world strives. Today's society is based on knowledge as the main good, virtue and competitive advantage and higher education plays a crucial role in shaping a knowledge-based society. The purpose of this article is to position higher education within knowledge-based societies and to emphasis the growing importance of higher education. Discussions about the shift from elite to mass higher education will be outlined as well as the concept of "universal higher education"in the 21st century. With this theoretical basis the need of quality assurance in higher education will be stressed in to enhance, improve and even maintain a quality-focused orientation. Higher education institutions are in a time of great tensions – they have to react quickly to educational needs of a fast-changing society and to assert one's position with other higher education providers. At present as well as for the future the necessity to assure quality for higher education systems to compete in a knowledge-based society at all levels – national and global – is evident.
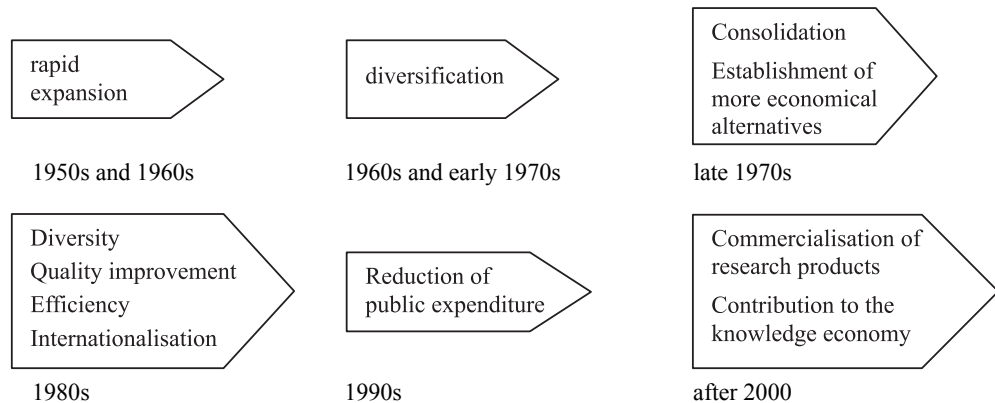**Key words***: knowledge-based society, quality, higher education.*

Higher Education within a Knowledge-Based Society

Research in higher education is a quite new field of interest and can be seen as a multidisciplinary subject. Researchers from different fields of study are interested in learning about the complexity of higher education. They are looking on higher education from different angles as for instance, educational or political sciences, psychology, sociology, history, economy or law – different fields of research are interested to bring light into the complex system of higher education (educational, management and social science approach).   Nevertheless the term higher education is relatively new and became popular in the 1970s because universities lost their exclusive right to provide higher education. From the middle age to the 60s the main and often the only post secondary institution have been the university. After that time other forms of tertiary education emerged and higher education came up to include universities as well as vocational and professional institutions (Scott, 2007, p.13).

Until World War II university education was a domain of the elite but this changed dramatically. The following figure illustrates phases of higher education developments (orientated on elaborations of Goedegebuure & Meek, 1997 and Colding & Meek, 2006) with a clear tendency towards more

diversification and marketisation of higher education in a knowledge driven economy. In the last phase especially research in higher education is emphasised *''as primary differentiator of higher education institutions''* (Colding & Meek, 2006, p.32) in the 21ˢᵗ century.

rapid expansion	diversification	Consolidation Establishment of more economical alternatives
1950s and 1960s	1960s and early 1970s	late 1970s

Diversity Quality improvement Efficiency Internationalisation	Reduction of public expenditure	Commercialisation of research products Contribution to the knowledge economy
1980s	1990s	after 2000

Figure 1.   Phases of higher education developments.

Today's university are facing great strain and tension because of ongoing societal developments. Knowledge changed to a factor of production and theoretical knowledge gains more importance as source of innovation and basis for political decisions in highly industrialized societies (Pellert, 1997, p.7/8). The Nobel Prize winner Joseph Stiglitz (1999) stated that knowledge is a *global public good* though the source of brainpower is limited by genetic distributions of talent and cultural disadvantages. The nature of education is bound to change and will become a continuing life-time affair for the professional and technical person. In this context Daniel Bell (1968) articulated that we need especially postdoctoral universities where new knowledge and new techniques can be passed along.

The arrival of knowledge-based societies, of course, has a great importance according to the development of universities. One could say that they are the first institutions to benefit from this increasing usage of information. These days universities compete with other institutions as, for instance, vocational colleges, research institutions and high-tech companies in popularity to cope with the increasing importance of knowledge. Universities cannot handle all these new forces and demands of the knowledge society which means that they are in an unstable situation and loose their position of high status and power. They have to be powerful and successful but loose at the same time their clear position (success vs. uncertainty) (Baggen et al., 1998, p.7-9). There is an intrinsic relationship between universities and knowledge societies but the future consequences are not foreseeable. One sees a future of knowledge as strategic resource for universities. Others see a world of academic capitalism. Thus, academia goes together with the knowledge society where "*competition with other institutions and a loss of the monopoly of universities*" prevails (virtual universities, corporate universities, media organisations, consortia, strategic alliances, private and public institutions) (Boer et al., 2002, p.43).

The new mode of knowledge production (Gibbons et al., 1994; Nowotny et al., 2001) effects academic research and brings new opportunities because entrepreneurial activities emerge. It must be kept in mind, however, that the basic stable function of the university is to educate researchers and to generate the cultural norms of a society. Nevertheless, an epistemic dimension in this development of academic knowledge production to societal knowledge production brings new practices though also uncertainty for today's knowledge-based society. Good practices are needed from traditional science with "*the heterogeneity of knowledge and the importance of new stakeholders*" (Boer et al., 2002, p.44) to combine either academic as well as economic functions of the academia (ibid., p.54). In the following Trow´s concept of growth in higher education will be described to provide a theoretical basis to understand these transformations and current developments.

Trow´s Model of Elite, Mass and Universal Higher Education

A society of experts developed throughout Europe as well as in the United States in the 19th and 20th century which contributed to an expansion of higher education significantly. This expansion changes the whole knowledge society and creates a diverse picture because learners themselves change and become more varied. Massification of higher education started firstly in the United States in the 1920s while Europe followed later in the 1960s, parts of Asia in the 1970s and the developing countries even no later but with the highest growth. Today there are more than 140 million students in postsecondary education worldwide and it will expand even more in the future (Altbach, 2008, p.2).

In taking a closer look at the changes occurring in higher education all over the world, it may be useful to recall the well-known distinction made by Martin Trow in the 1970s. The American higher education scholar was the first scientist to describe the idea of "*Elite, Mass and Universal*" higher education at the OECD Conference on Future Structures of the Post-Secondary Education in 1973. Trow associated the problems of higher education with aspects of growth and transition which have their impact on every form of activity and manifestation of higher education (finance, government and administration, recruitment and selection of students, curriculum etc.). Trow classified the higher education growth into phases and concentrated on the consequences associated with such an expansion in terms of access, functions of higher education, curriculum and forms of instruction, student ''*career*'', institutional diversity, characteristics and boundaries, academic standards, governance, administration and the locus of power and decision making (Trow, 1973, p.2-18). In the following a short distinction of elite, mass and universal higher education will be made according to Trow´s ideas from 1973:

- *Elite higher education system*: about 5 % of the proportion of an age grade are enrolled in a higher education institution; institutions with high academic standards with a qualitative homogeneity in the student population; university main function is to train students by developing their personality for high positions in society.

- *Mass higher education system*: new institutions with new functions and increased participation of the age cohort (at least 15%); fuzzy and permeable boundaries from an institution to another; universities lose their monopole in providing higher education; boundaries among higher education providers are weak or even non existent.

- *Universal higher education system*: age cohort beyond 50%; main function of higher education institution is to prepare a great part of the population to social and technological changes.

Trow developed his work from the 1970s in later papers (1976, 1979, 1981, 2000) and always claimed that these elaborations are not empirical descriptions but models or "*ideal types*" to understand higher education systems (Brennan, 2004, p.22). Though Trow formulated sequential phases, he left it open if earlier stages are completely replaced by later ones which means that elite forms can still survive in mass and universal stages. For instance, today's demand for top level higher education institution can be seen as way back within the stages. Still most of those people who are in positions of power have graduated at one of those elite institutions.

Trow's model sees this expansion process as a blind as well as main force triggering changes and evolution in higher education systems. If there are more students in higher education changes in structures, objectives and purpose as well as the way to operate are evident. Nevertheless Trow has given ideal models but also changed his original idea of the 70s to modify and "*illuminate contemporary conditions*" as far as this could be possible (Trow 2006, p.245).

Phillip G. Altbach (2008) states that this massification process implicates tensions between higher education as public good vs. private good, widens the access, differentiates in types of institutions, varies the patterns of funding and is responsible for a decline in quality and conditions of study. Lots of initiatives are made to contribute improved higher education to the economy by achieving high numbers of graduates with skills and competences which the labour marked needs. And in these times of mass higher education with its enormous growth the need to assure the qual-

ity (external examiners, audits, subject reviews, benchmark statements etc.) is evident but it is not clear if quality and standards are consequently maintained in such enlarged and diversified higher education systems (Brennan 2004, p.22). To show how higher education is influenced by quality assurance mechanisms the following observations shall provide more clarity but also to serve a plea for those higher education institution that are not on the road to assure their quality.

The Need of Quality Assurance in Higher Education

The transition from "*elite*" to "*mass*" higher education (Trow 1973) caused many fundamental changes as well as challenges for all decision makers in the field of higher education that the real "*pre-quality*" era started (Ewell 2007, p.123). All these changes the higher education sector is confronted with are closely linked to a "*growing interest in quality, demands for accountability, and the establishment of national quality agencies. By the end of the 1990s concern for quality and standards was global*" (Newton 2007, p.14).

The roots of the rise of quality assurance can be found by the end of the 19ᵗʰ century. At this time the U.S. established the first accreditation organisations. In Europe the first formal national quality assurance policies date back to around 1985 with the rise of "*the Evaluative State*" (Neave 1988, p.8). Thus, quality is in the centre of higher education and is reviewed through national quality mechanisms (specific laws, rules, regulations). In the literature there are numerous definitions from quality in education. A heuristic framework is provided, for instance, by Harvey and Green (1993), who suggest that quality can be seen as excellence, transformation, fitness for purpose, value for money or as perfection.

The growing interest for quality in education is closely linked to the expansion of higher education and the increasing costs since the 1980s. The state-university relationship changed from a traditional strong "*state steering approach*" to a more market-driven model, the so called "*supermarket model*" (Gornitzka & Maasen, 2000, p.273ff). The traditional role of the government changed significantly which is illustrated in table 1. It shows that the main focus on public financing and provision of education shifted towards a more flexible policy and regulatory framework (World Bank, 2003, p.58f).

Table 1. Traditional role of government and new role in the knowledge economy.

Policy issue	Current role	Role in the knowledge economy
Integration/coordination at national level	Adopts compartmentalized, sectoral approach	Coordinates multisectoral approach
Coordination across governance levels	One-way control and regulation	Two-way mutual support and partnerships
Government as an enabler	Controls and regulates	Creates choices, provides information and incentives, facilitates cooperation and provision
Linkage between education and the labor market/society	Supply is institution-driven	Demand is learner driven
Qualification assurance system	National standards linked with curriculum and student assessment	Diverse system of recognition and quality control
Administration and management	Provides rules and regulation	Creates incentives, facilitates diverse providers

Source: World Bank, 2003, p.59

It clearly can be seen that in the new knowledge economy quality issues gained importance because policy makers wanted to know if their funds are spent in a correct and efficient manner. Gornitzka and Maasen (2000) get to the point: "*It is as if the governments want to make sure that the*

universities and colleges use the large autonomy in such a way that the outcomes the governments expect of enlarging the autonomy are indeed achieved" (p. 284).

For that reason the New Public Management (NPM) was implemented to enhance outcomes and cost-efficiency of public services (Marginson & van der Wende, 2007, p.8ff) of more autonomously organised institutions. This goes along with a loss of trust according to the academic community on the one hand and a "*rise of managerialism*" on the other hand (Trow, 1994). However, lots of academics link quality assurance with "*bureaucracy*", "*burden*", "*accountability*" and further negative associations as figured out in a UK-study by the end of the 1990s (Newton, 2002, p.45). Nevertheless quality in education is important for graduates either to take part in a knowledge-based society in an efficient manner as well as to be able to keep their knowledge and skills up-to-date. Hence, different stakeholders are interested to assure quality in education but with a different approach.

Within the Lisbon strategy (European Council, 2000) quality in higher education has become an important matter to make the Europe to "*the most competitive and dynamic knowledge-driven economy in the world*" because research and innovation were seen as key motors for today's global economy. Already more than one decade ago El-Khawas, DePietro-Jurand and Holm-Nielson (1998) claimed that quality assurance as well as enhancement will play a major role in the 21st century. Moreover, they highlighted the importance of international cooperation in terms of quality assurance (p.14). A report of the World Bank (2002) "*Constructing Knowledge Societies: New Challenges for Tertiary Education*" points out several important implications why quality assurance is becoming such an important factor in our knowledge-based society: mobility of students and staff, creation of new types of higher education institutions, franchising of higher education programmes, distance education and other domains where higher education goes beyond the (national) borders (p.35).

Therefore different mechanisms and practices of quality assurance are needed. A (internationally and nationally recognised) quality assurance system should be able to guarantee transparency and control of higher education programmes and that diplomas and degrees of students are approved. Although nearly all over the world international and national quality assurance agencies have been developed there are different approaches to ensure quality (internal or external procedures, accreditation vs. evaluations, quality audits etc.). While some countries established only one national agency (e.g. Finland) others have separate agencies with different responsibilities (e.g. Germany), which shows the political and cultural diversity of the countries all over the world. Furthermore the initiative to establish international qualification frameworks (EQF – European Qualification framework, NQF – National Qualification Framework) helps small countries to set up a regional quality assurance system or assist different global quality assurance initiatives (World Bank, 2002, p.xxx).

Tertiary education has to cope with lots of new challenges due to enormous changes (globalization, ICT, socio-political transformations, lifelong learning and knowledge-based society) but faces also new opportunities as playing the key role in today's society. Santiago et al. (2008) recommend some practical arrangements for a functioning quality assurance system:
Avoid fragmentation of the quality assurance organisational structure
- Avoid excessive costs and burdens
- Improve quality information base
- Improve information dissemination (p.315/316)

With these suggestions current quality assurance systems, which vary among countries in their scope and emphasis, could be improved. Quality assurance schemes have to be developed as necessary instruments to adjust higher education institutions to the ongoing transformation processes. As the different systems are most of the time newly developed they should be able to adapt to changes and try to act quickly to the needs of our knowledge-based society. Quality assurance in higher education is not fully developed but still under construction!

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