

INSTITUTIONAL DIFFERENTIATION. MODELS AND THE COMPREHENSIVE INSTITUTION

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ABSTRACT

The higher education sector faces challenges in the 21st century that institutions need to respond to. In South Africa current reforms emphasize the reality of a changing environment that one can expect institutions will respond to in different ways. The comprehensive institutions that have been created by current reforms face an interesting challenge to establish an institutional identity that creates a university on the one hand, but maintains the career-orientated focus of the academic programmes of their merging partners. The expectation internationally is that "... there will be much more variety in the landscape in the future" (De Boer et al., 2002: 52). Variations will emerge along certain dimensions such as different clienteles that are served, a focus on different missions, different geographical levels as operating domain, the use of different technologies, and trends to form coalitions/networks/consortia.

At the organizational level universities will experience stress to maintain the unity of functions that are associated with the university. The unity of research and teaching and the nature of the academic task can come under stress. The pursuit of excellence and the maintenance of some form of diversity can interact in interesting ways as well. In quality assurance the question can be raised as to the adequacy of the application of traditional fairly homogeneous academic standards to

diverse institutions that respond to different stakeholder expectations.

The article will seek to identify the dimensions along which diversity and institutional differentiation can take place and will look at some of the models that have emerged in distance education internationally, in the community college sector (an oft neglected sector) in the USA, and efforts at extending the traditional university model. Some lines will be drawn to the comprehensive institutions, the new kids on the block in the SA higher education system.

1. INTRODUCTION

In an earlier edition of the Journal the notion of models in higher education and by implication therefore the issue of institutional differentiation was discussed. Much of the work centered on the work of Duderstadt (2000) and the propositions he raised for higher education institutions responding to changes in their environments. This article will continue with the notion of model, but will attempt to identify the dimensions along which institutional differentiation can take place. To further stimulate thinking on models, the models in distance education, the community college sector in the USA, and models that extend the traditional university model will be visited. Some of the insights gained will be related to the comprehensive institution as the new phenomenon on the South African higher education landscape. Hanna (1998: 67) points again to the changes that are occurring in higher education: "In this rapidly changing environment, which is increasingly based within the context of a global, knowledge-based economy, traditional universities are attempting to adapt purposes, structures, and programs, and new organizations are emerging in response. Organizational changes and new developments are being fueled by accelerating advances in digital communications and learning technologies that are sweeping the world. Growing demand for learning combined with these technical advances is in fact a critical pressure point for challenging the dominant assumptions and characteristics of existing traditionally organized universities in the 21st century. This combination of demand, costs, content application, and new technologies is opening the door to

emerging competitors and new organizations that will compete directly for students and learners".

2. THE NEED FOR HE INSTITUTIONS TO DIFFERENTIATE THEMSELVES

In a review of higher education De Boer et al. (2002) make the point that universities have "... shown a remarkable capacity to adapt to a variety of changes while maintaining their basic characteristics" (p. 49). It is the tension between preservation and transformation that proves interesting in a review of the history of universities. Forces outside the university tend to point to the forces demanding transformation whereas those in the universities sector point to "... the conservation of tradition, culture and citizenship [as] one of the fundamental missions of universities in society" (p. 49). De Boer et al. (2002: 51) do however conclude that the trends in higher education that they have identified will lead to organizational change in academia. In Western Europe and in the USA the higher education landscape is relatively ordered (p. 51). Things that do distinguish between the institutions include *status* and the extent to which institutions have developed a *basic research mission*. The expectations are though that higher education institutions could be much more varied in the future (p. 52). "There are opportunities (challenging or not) to aim at - to put it in economic terms different target groups, different products, different functions, etc. Institutions may focus on different clienteles (the traditional school-leavers, life-long learners, adults, employees, etc.), on different missions (the classical university, the entrepreneurial university, the service university, etc.), on different levels (regional, national, international), and using different technologies (traditional settings or more flexible approaches, like distance and virtual education). In addition, whereas universities were often considered "stand-alones", the present tendency to form coalitions, networks and consortia indicates that the future organizations may look very different from the present ones" (p. 52). Universities may find it increasingly difficult to integrate new tasks or to maintain a unity of functions that may lead to an unbundling of the institution (p. 52). The symbiotic relationship between teaching and research may be difficult to maintain. Different types of research are

commonplace: basic, applied, mode 2, government-funded, and contract/proprietary. Teaching has become differentiated between professionals, academics, young adults, mature students, virtual or traditional. It may be necessary to differentiate between staff roles simply because all academic staff doing all teaching and research tasks may become untenable (p. 53). These differentiations can place pressure on the appropriateness of quality assurance policies and procedures, the nature of reward and accountability systems, the certification of knowledge, recruitment of academic staff, and the quest for a balance between intra-organisational competition and cooperation (p. 53). The extent of integration that can be achieved in the organization can become a rather interesting challenge.

It is predicted that the higher education environment will become increasingly competitive (De Boer, 2002: 53). This does imply that institutions will seek to define their own niche and become somewhat unique. The emphasis placed on excellence represents one of the common responses to this competitive environment (p. 53). Yet, excellence and diversity can come into conflict due to the trend to emulate successful institutions that excel in research and teaching.

To enrich the thinking on models in higher education, distance education, the community colleges in the USA and the way traditional institutions have transformed and formed new institutions will be briefly reviewed.

3. DISTANCE EDUCATION MODELS

Distance education presents an interesting case, as “[u]niversities with a significant role in distance education ... are different: they have always been, and will always be, in the vanguard of innovation and institutional change” (Taylor, 2004: 3). ‘Distance education operations have evolved through the following four generations: first, the Correspondence Model based on print technology; second, the Multi-media Model based on print, audio and video technologies; third, the Telelearning Model, based on applications of telecommunications technologies to provide opportunities for synchronous

communication; and fourth, the Flexible Learning Model based on online delivery via the Internet” (Taylor, 2004: 3). Taylor (2004: 3) points out that some universities are still busy implementing the fourth generation initiatives, but the fifth generation has already emerged. “The fifth generation of distance education is essentially a derivation of the fourth generation, which aims to capitalize on the features of the Internet and the Web” (Taylor, 2004: 3). He refers the fifth generation model as the Intelligent Flexible Learning Model.

Table 1: Taylor's Models of Distance Education

Models of Distance Education and Associated	Characteristics of Delivery Technologies					
	Flexibility			Highly Refined Materials	Advanced Interactive Delivery	Institutional Variable Costs Approaching Zero
	Time	Place	Pace			
FIRST GENERATION – The Correspondence Model Print	Yes	Yes	Yes	Yes	No	No
SECOND GENERATION – The Multi-media Model Print	Yes	Yes	Yes	Yes	No	No
Audiotape	Yes	Yes	Yes	Yes	No	No
Videotape	Yes	Yes	Yes	Yes	No	No
Computer-based learning (e.g. CML/CAL/IMM)	Yes	Yes	Yes	Yes	Yes	No
Interactive video (disk and tape)	Yes	Yes	Yes	Yes	Yes	No
THIRD GENERATION – The Telelearning Model Audio teleconferencing	No	No	No	No	Yes	No
Videoconferencing	No	No	No	No	Yes	No
Audiographic Communication	No	No	No	Yes	Yes	No
Broadcast TV/Radio and Audio teleconferencing	No	No	No	Yes	Yes	No
FOURTH GENERATION – The Flexible Learning Model Interactive multimedia	Yes	Yes	Yes	Yes	Yes	Yes
IMM online	Yes	Yes	Yes	Yes	Yes	Yes
Internet-based access to WWW resources	Yes	Yes	Yes	Yes	Yes	No
Computer mediated communication						
FIFTH GENERATION – The Intelligent Flexible Learning Model Interactive multimedia (IMM) online	Yes	Yes	Yes	Yes	Yes	Yes
Internet-based access to WWW resources	Yes	Yes	Yes	Yes	Yes	Yes
Computer mediated communication, using automated response systems						
Campus portal access to institutional processes and resources						

From: Taylor, 2004: 3-4.

Very often the question is posed as to which universities exemplify the models contained in these typologies. The Fifth Generation approach is well reported on by Taylor (2004) at the University of Southern Queensland. What he describes is a systemic commitment (as opposed to a process of random innovations) that drives the development work associated with the Intelligent Flexible Learning Model. The model makes provision for amongst other things the on-line management of finances, marketing and recruitment (nationally and internationally, student administration, enrolment, publishing, and content and courseware management using different interfaces of a comprehensive Computer Mediated Communication system based on intelligent object databases. In the interest of interactivity, nuanced automated response systems are being developed that will also encompass the learning resources and facilities students will have access to, allowing too for access to lecturers who can interact with students on their more individualized needs.

As with all models in higher education, they do not just try to capture what is out there, but they also act as heuristic devices that help to enlighten the institutional landscape, while also challenging other higher education institutions and systems to take note of the way in which institutions are responding to new challenges and needs in a changing environment.

4. THE COMMUNITY COLLEGES IN THE USA, AUSTRALIA, CANADA AND JAPAN

In a review of community college models Ural (1998: 103-125) out that the community college is typically associated with the presentation of vocational courses. These colleges are organized differently in different countries, but they do reveal organizational forms that are interesting. Several of the institutions have developed innovative approaches for adult learners that include distance learning, time-compressed, modular courses and weekend programmes (Ural, 1998: 110).

The community colleges in these countries are distinguished by the following features (Ural, 1998: 107):

- An open admissions policy is maintained;
- The colleges are focused on the education and training needs of local communities;
- Flexible programming and the programmes are offered either on or off campus;
- Access can be gained regardless of academic background and in this way access is obtained to higher education study opportunities;
- Lifelong education is provided to learners of all ages in courses not constrained by examinations and the allocation of marks;
- The curriculum is informed by community learning needs; and
- The programmes of the community colleges are closely linked to needs of industry, commerce and other employers in the local community.

Table 2: Features of community college models in four countries

Differentiating Features	USA	Australia	Canada	Japan
Includes transfer courses (associate degree transfer programmes) that allow potential to continue on to university based on articulation agreements	*		*	
Transfer to other institutions such as further education colleges is possible		*		
Provides technical, vocational/ occupational (re)training/upgrading of skills/ paraprofessional programmes	*	*	*	
Teacher training for the local community		*		
Provides lifelong/continuing educational enrichment and recreational and leisure programmes	*	*	*	
Servicing a large body of recent secondary school graduates				*
Terminal institutions, granting certificates and preparing students for state licensing				*
Entry level selection of students based on entrance scores or low secondary school marks				*
Provision of adult basic education and citizenship education			*	
Provision of English as second language to immigrants		*		
Programmes are flexible, accessible and adaptable to the changing needs of the student/individual and/or business and industry and/or the economy	*	*		
Dual control by state and local governments (local boards) Direct responsibility to a national ministry of education	*			*
Non-profit, community managed organizations		*		
Predominantly financed through tuition – augmented by a 20% subsidy from government				*
Use distance learning	*			
Modular, time-compressed courses	*			
Weekend courses	*			
Adult degree programmes developed with business firms	*			
Programmes offered with schools and school systems	*			
Cooperation with local schools to access premises		*		
Predominantly public institutions	*			
Student outcomes assessment and programme review approaches are used to promote quality	*			
Use of competency-based training, the recognition of prior learning within a national framework for the recognition of training		*		
Mandatory accreditation to qualify for state government funding for certain programmes		*		

Based on and extracted from the review of Ural (1998: 108-116).

Community colleges have become a significant part of the provision of relevant education in countries such as the USA, where they provide postsecondary education to approximately 65% of the students in public higher education (Ural, 1998: 108).

5. FROM TRADITIONAL UNIVERSITY TO NEW INSTITUTIONS

In an extensive review of trends in the institutional landscape of higher education, Hanna (1998: 68) discusses the following models:

- Extended traditional universities;
- For-profit adult-centered universities;
- Distance education/technology-based universities;
- Corporate universities;
- University/industry strategic alliances;
- Degree/Certification competency-based universities; and
- Global multinational universities.

The current review is intended to be brief, hence the summary tables as developed by Hanna will be used in this context. Table 3 condenses the tables used by Hanna (1998: 72, 77-78, 82, 84-85, and 87) by simply focusing on Philosophy, Mission, Funding Curricula and Instruction.

Table 3: Institutional models as reviewed by Hanna (1998)

	Extended Traditional Universities	For-profit adult-centered universities	Distance education/technology-based universities	Corporate universities	University-industry strategic alliances	Degree/Certification competency-based universities	Global multinational universities (still emerging)
Philosophy	Campus goes to students	Campus and non-campus philosophy	Campus goes to students	Campus and non-campus philosophy	Campus goes to students	No physical campus	Campus based and off campus; but international arena
Mission	Externally focused, degree completion and workforce development	Almost exclusively workforce focused	Externally focused, degree completion and workforce development	Exclusively workforce focused on corporation needs	Externally degree completion and workforce development	Externally and market focused	Internally and externally focused, marketing excellent programs
Funding	More self-sustaining and market driven	Market-driven, workforce focused, and profit driven	Reduce cost of access of higher education	Funded by corporation or by department assessment	Market driven, workforce focused, and entrepreneurial but necessarily profit driven	Intended to be self-sustaining and market driven	For profit and non-profit
Curricula	More flexible curriculum content for workforce competence and development	Focused on workplace needs, adult oriented	More flexible curriculum-content for workforce competence and development	Build corporate citizenship and employee skills	Adult workforce competence and development	Curriculum is defined by competencies and knowledge, courses not offered	Excellent programs marketed locally and abroad
Instructional Model	Greater variety of methods and use of student experience	Methods typically standardized across locations – greater use of student experience	Varies by type (correspondence, extended classroom, emerging online/web-based universities)	Methods typically standardized across locations	Typically custom-designed for market; use of instructional design teams	Emphasizes student independent learning and initiative	Minimizing cultural and geographic barriers
Students	Life and work experience is a greater factor in admission	Life and work experience significant factor in admission	Life and work experience is greater factor in admission	Generally required to be employed by corporation	Targeted groups of students, usually employed adults	Life and work experience is major factor in admission – graduations more important than admissions standards	Diverse, first time and continuing learners

Adapted from Hanna (1998).

6. THE NOTION OF MODELS IN HIGHER EDUCATION AND CLASSIFICATION SYSTEMS

The models that have been presented are reductions of a complex and diversified reality they are dynamic and the boundaries between them fluid (Hanna, 1998: 93). What is clear from the article previously published (Muller, 2003) is that the notion of models in higher education is not straightforward, firstly due to the *hybrid nature* of many higher education institutions themselves, and secondly due to the *different classification possibilities* that can be postulated. Reference was previously made to the models proposed by Duderstadt (2000) that include models such as the

- World or Research University;
- The Diverse University;
- The Creative University;
- The Divisionless University;
- The Cyberspace University;
- The Adult University;
- The Lifelong University;
- The Ubiquitous University; and
- The Laboratory University.

Not included above would be the notion of a university of technology and the entrepreneurial university that was elaborated on by Clark (2000). The Council on Higher Education (CHE) Report (2000) proposed a classification or differentiation that distinguished between so-called bedrock institutions, comprehensive postgraduate and research institutions, extensive masters and selective doctoral institution, distance education and private higher education. The review presented here that focused on distance education, community colleges, and models that extend the traditional model particularly along a technology dimension used another classification approach to somehow capture the institutional landscape in these sectors. There clearly is a need for somewhat varied classification systems, as the higher education systems in different countries are quite diverse (a point made by the 1997 Dearing Report about higher education in the UK). The Dearing Report in fact considers this diversity a strength that allows HE institutions to better serve the student community.

What is clear is that the type of classification presented by the CHE can cut across sectors such as distance education or private HE providers. The models proposed by Duderstadt are *heuristics propositions* aimed to challenge HE institutions about their future. The Young typology in distance education uses technology (the operational coal face of the institution) as organizing principle. The models presented by Hanna (1998) use to some extent the variations from the traditional university model and the role played by delivery technologies as organizing principle (though not exclusively technology bound). Singly and collectively, the typologies all reveal something of the *essence of higher education institutions* and higher education provision and in that sense they all make their unique contribution to enlighten what is a complex maze. They do challenge other higher education institutions about their own identity on the institutional landscape and in that sense these typologies are productive and thought provoking. A further generalization can be made: any typology that can succeed to provide a conceptual umbrella and organizing principle that captures the essence of higher education institutional differentiation will in all likelihood have to be quite general and operate with macro level classification categories to ensure some measure of “reach”.

7. DIMENSIONS WHEREBY HIGHER EDUCATION INSTITUTIONS DIFFERENTIATE THEMSELVES

Against the background of the brief discussion of institutional differentiation and the models reviewed (including a bit of author discretion), it would appear that diversity or institutional differentiation can take place along the following dimensions:

- Status
- Philosophy
- Vision and Mission
- Research mission
- Programme qualification mix (particularly in the SA context)(DOE, 2001)
- Curriculum
- Instructional model
- Faculty
- Target groups/students
- Funding

- Levels (geographical coverage)
- Delivery (ICT) technologies
- Networks and partnership arrangements
- Library
- Physical facilities
- Productivity outcomes
- Governance; and
- Accreditation

As the comprehensive institution is a new phenomenon on the South African institutional landscape, these dimensions that have been identified will be related to these institutions in the form of the challenges that they may face.

8. THE COMPREHENSIVE INSTITUTION

What does all of this say to the South African higher education system? No doubt all higher education institutions try to define themselves and carve out their niche, all of this a function of the environment in which these institutions operate. The new kid on the block, so to speak, will be the comprehensive institutions. If one takes the dimensions along which institutions differentiate themselves into account, then a number of tensions emerge that the comprehensive institution will have to reconcile. Table 4 identifies these bipolar tensions neither pole is considered good or bad, the poles are simply attempts to define in a limited manner the playing field and its dynamics.

Table 4: Bipolar tensions that comprehensive institutions need to reconcile

For any newly constituted higher education institution, the challenge remains to negotiate the different tensions and to establish a coherent and responsive learning organization.

9. BIBLIOGRAPHY

Collini, S.
2003: HiEdBiz. In: London Review of Books, 25(21), 6 November 2003. Accessed on 11-06-2004.
[Http://www.lrb.co.uk/v25/n21/print/co1101.html](http://www.lrb.co.uk/v25/n21/print/co1101.html)

Clark, B.R.

2000: Collegial entrepreneurialism in proactive universities: lessons from Europe. In: *Change*, 32(1), January/February 2000: 10-19.

Council on Higher Education.

2000: Towards a new higher education landscape: meeting the equity, quality and social development imperatives of South Africa in the 21st century. Cape Town: Idasa Publishing.

De Boer, H., Huisman, J., Klemperer, A., Van der Meulen, B., Neave, G., Theisens, H. & Van der Wende, M.

2002: Academia in the 21st century: an analysis of trends and perspectives in higher education and research. Adviesraad voor het Wetenschaps- en Technologiebeleid: AWT-achtergrondstudie nr. 28. Accessed on 1-03-2004. <http://www.awt.nl/pdf/as28.pdf>.

Department of Education.

2001: National plan for higher education, February 2001. <http://education.pwv.gov.za>

Duderstadt, J.J.

2000: A choice of transformations for the 21st century university. In: *Chronicle of Higher Education*, February 4, 2000.

Hanna, D.E.

1998: Higher education in an era of digital competition: emerging organizational models. In: *JALN*, 2(1), March 1998. Accessed on 12-06-2000. http://www.aln.org/alnweb/journal/vol2_issue1/hanna.htm.

Muller, A.

2003: Models and institutional differentiation in higher education: towards a typology. *Journal for New Generation Sciences*, 1(1), 2003: 34-42.

Dearing, R.

1997: The National Committee of Enquiry into Higher Education, 23 July 1997. <http://www.leeds.ac.uk/educol/ncihe/>

Taylor, J.C.

2004: Fifth generation distance education. Accessed on 1-03-2004. <http://www.icde.org/oslo/icde.nsf/print/FD5130FDCE096DA341256C3F00397748?O...>

Ural, I.

1998: International community college models: a South African perspective. In: Strydom, A.H. & Lategan, L.O.K. 1998: *Introducing Community Colleges to South Africa*. Bloemfontein: University of the Free State: 103-124.