

Burton K. Clark. (1998). *Creating Entrepreneurial Universities: Organisational Pathways of Transformation*. UK, USA, Japan: IAU Press, Pergamon. Pages: x, 163.

Reviewed by Rosa Bruno-Jofré, Faculty of Education, Queen's University and Donna Chow, Faculty of Medicine, The University of Manitoba.

There is a large body of scholarship dealing with university transformation in light of the dominance of a market economy and the process of technical and economic globalisation. This book illustrates an approach that is becoming more dominant — the university that does not necessarily rely on the state as the only funder.

The book provides an analytical assessment of the transformation process typified by five European institutions: Warwick in England, Twente in Holland, Strathclyde in Scotland, Chalmers in Sweden, and Joensuu in Finland. These universities have responded to limited funding from the state that constrained their capacity to support their developmental ambitions and an expanding clientele. They chose the entrepreneurial model. The underlying assumption is one of inevitability, these universities had to take this approach in order to survive. The book provides guidelines for other universities wishing to follow the entrepreneurial path.

The major strength of the book is the identification of five elements as an “irreducible minimum” (p. 5), the process of transformation toward an entrepreneurial university. These are: strengthening the steering core; expanding the development of periphery; generating a diversified funding base; stimulating the academic heartland; and developing an integrated entrepreneurial culture.

Warwick was established in the 1960s, discipline-centered, academic based, and research intensive. The cuts in grants affecting the university system under the conservative government in the 1980s motivated the administration to “earn” the needed funds rather than to depend on fund-raising. The main components were an entrepreneurial periphery led by engineering and business schools, the marketing and development of conference centres, the establishment of science parks, and the internationalisation of the institution (reaching out to students

through out the world thus, generating an important source of income). The administrative core at Warwick was relatively centralised in contrast to the other four institutions which emphasized decentralisation of funds and administrations (p. 21). The Joint Council and Senate Strategy Committee became finance-driven rather than academic driven (p. 23) and this fact was reflected in the planning. The Faculty of Education for example, was abolished as such and an Institute of Education was created within the Faculty of Social Studies. The Senate committee that allocated money to departments and made decisions regarding faculty positions had elected members. In the author's view, this committee gave the collegial dimension to the process. The main objective was to develop a third stream of income from non-traditional sources in addition to direct government grants, and government research councils' grants. The experiment proved to be successful since by 1995 nearly 50% came from additional third stream sources.

Twente University of Technology, located in the hinterland, opened its doors in 1964 with three Faculties of Engineering — Mechanical, Electrical and Chemical. Twente encountered difficulties, according to the author, when rectors and small cadres of administrators and faculty had to subordinate their plans to participatory patterns. This situation was "remedied" in 1995, when the Dutch government reversed the University Government Reorganisation Act of 1970 leaving the matter of governance to individual universities. By 1980, partly due to its location, size, limited scope, and partly due to previous political developments, Twente had been left in a vulnerable position susceptible to financial crises generated by government cuts. In fact, the author believes that the cuts helped to smooth the transformation process. A fundamental step was the strengthening of the administrative core by having three individuals exercising central initiatives and by making hegemonic the institutional idea of an entrepreneurial university. Twente stimulated the academic heartland by building from core competencies and by creating new combinations out of existing units, focusing on informatics, computer sciences, and educational technology. It developed a third stream of funding coming from industry, the European Union, and other governmental ministries providing additional and dis-

cretionary funds. The method used to generate funds was to create a developmental periphery — a true periphery of outreach units and a semi-periphery of outward-looking and problem-solving research centres. The true periphery linked traditional university units with the industrial and professional community. The university established the office of Transfer, Research, and Development (later transformed in a Liaison Group) to facilitate the transferring of technology from university to small and medium-size enterprises and stimulate graduates and researchers “to start their own knowledge-intensive company” (p. 47). A science park consequently came into being quite informally and developed further through bottom-up networking by interested companies. In the 1990s Twente approved a “privatized” business school that remained operationally part of the university, but was constituted to be outside its rules and regulations. The Twente programmes, created as part of a focused entrepreneurial university, have spread to other European countries and beyond. It provides an example of the development from the traditional professorial university through the participatory university to the managerial university (p. 58).

The University of Strathclyde, a mechanical institute turned into a college and then into a technological university, celebrated 200 years in 1995, but had always lacked status in the British system. Affected by the cuts of the 1980s, its programmes were expanded into the areas of business studies, arts and social studies. With the goal of developing the university-industry relations to achieve greater financial control, Strathclyde strengthened the administrative core (the University Management Group became the lasting element in the administrative core). In order to implement budget devolution with strategic funds being held by the centre (UMG) as part of a decentralised financial approach, departments and schools were consolidated into four major faculties of Science, Engineering, Business and Arts and Social Sciences. Strathclyde put together a developmental periphery through the creation of the office of Research and Development Services (later Research and Consultancy Services) which took advantage of previous developments in the business school, and success in research in pharmaceutical chemistry. This office promoted an incubator on campus to start small businesses prior to their

moving to a science park shared with the University of Glasgow. It is important to note that Strathclyde moved to interact with the third world. This move developed from involvement in chemically synthesised compounds and from exploration into natural health products that offered licensing opportunities. Bilateral agreements on plant-material acquisition were signed with third world countries. These agreements were just mentioned by the author with no further comments. The creation of links between social sciences and humanities and industry remained elusive. Strathclyde focused on strategic areas of European studies and women's studies which indicated that expenses were controlled by excluding non-profitable classes and reducing the number of expensive senior faculty. Clearly the university adopted a full market approach.

Chalmers University of Technology was founded in 1829 in Gothenburg as the Chalmers Institute, and in 1937 became part of the state owned system of universities. The original goal had been to have it become a Swedish polytechnic institute with an initial focus on mechanical and chemical engineering and additional specialisations related to the local economy. The five elements identified by Clark appear highly interrelated at Chalmers. The idea of an entrepreneurial university came from a scientist who had worked in the U.S.A. In the late 1970s he was supported by an administrative core consisting of a two-person cadre: the rector and the administrator director. A critical step toward the creation of a developmental periphery was the establishment of the Chalmers' Innovation Centre to secure the transfer of new product ideas and technology to the industry. The periphery included a science park and an incubator, which led to the development of over 200 off shoot companies. Again there appears the strengthened steering core with a business style administration, and the adoption of a decentralised budget to increase accountability. The strong corporate identity was supported by the activities of a self-selected students' campus group which led to the development of a distinctive and highly focused alumni. A discretionary funding base was less central than in Warwick, Twente, and Strathclyde, but diversified funding strategies were pursued including the internationalisation of operations through agreements in research.

In 1994 Chalmers opted out of state-controlled higher education in Sweden to become a “foundation university,” to be run like a limited company. Chalmers sought more flexibility in finances, structure, and in recruiting and employment. This move was supported by a conservative party government interested in free enterprise. It implied the generation of an endowment, and state support following targets of performance.

Chalmers was the only university in Sweden to follow this path, which was offered to all by the conservative government but not supported by the subsequent social democratic government.

The University of Joensuu, a small, regional comprehensive university, in rural Finland was created in 1969 from a teachers’ college. It moved beyond pedagogy to teaching school-related subjects and subsequently non-school subjects. The institutional idea was one of less state and more marketing. Taking on the role of a “pilot institution,” it worked with an administrative core and a decentralised budget. The major entrepreneurial units were the Departments of Chemistry, Physics, Forestry, and Education while the others moved toward either social policy issues or offered undergraduate courses that were in demand. The internal decentralisation brought the academic heartland into the picture, but also generated the need to assert the “institutional interest.” This was done by means of “dialogue” and “information systems” which also allowed for performance measurement. A second major reform was “flexible work load” which could be negotiated by faculty on an annual basis. The entrepreneurial model led to the creation of a developmental periphery and the diversification of funding. It should be noted that in general fewer faculty members were kept on full time basis. As the author said “temporary money” can only support “temporary people” (p. 115).

The universities examined in this book acknowledge a bias toward focus comprehensiveness by merging departments and eliminating areas that were offered by other established universities. Academic decisions were also made from a financial perspective and in light of students’ demands for courses and programmes. The market approach clearly permeated the mission of these universities. While women and gender issues were the subject of one of the research centres at Warwick, the author does not even mention issues of equity and inclusivity in the

analysis of the development of an entrepreneurial pathway. These issues were obviously over-ridden by market and financial concerns. The reader can construe a second unintended reading of the text, between the lines, about the impact of the entrepreneurial model on the principles governing universities such as academic freedom, tenure, equity and inclusivity, collegial governance, and specially, about the role of the university as social critic. The universities reviewed in this book and praised by the author chose to work within the parameters of a market ideology, an ideology that has carried an atmosphere of inevitability, and is affecting the nature of major educational institutions. The choice for educational institutions is an old existential one: either they decide to exist in the world as defined by external forces (mainly the market through corporate influence) or they decide to participate in it by assuming a critical and transformative role on terms that emerge from the institutions' history and praxis (interaction with practice and constituencies) rather than becoming an object of change.



Jan Currie & Jan Newson (Editors). (1998). *Universities and Globalization: Critical Perspectives*. Thousand Oaks, CA: Sage Publications. Pages: 335 (paperback).

Reviewed by Jamie-Lynn Magnusson, Ontario Institute for Studies in Education/University of Toronto.

Over the years I've been indebted to Jan Newson's consistent and clear voice in her various writings on Canadian higher education. Her book co-authored with Howard Buchbinder, *The University Means Business*, has been required reading in my graduate courses on higher education, as have various articles and chapters written by her. In her new book, *Universities and Globalization*, Newson teams up with Jan Currie, an Australian-based researcher, to bring together a collection of writings examining how universities are being shaped by market ideology in an era characterized by the restructuring of parts of national economies onto parts of transnational economies. An important theme in