The Future of Higher Education Policy, Pedagogy and the Student Experience

Edited by

Les Bell, Mike Neary and Howard Stevenson





Continuum International Publishing Group

The Tower Building 11 York Road London SE1 7NX 80 Maiden Lane, Suite 704 New York, NY 10038

www.continuumbooks.com

© Les Bell, Mike Neary, Howard Stevenson and Contributors 2009

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage or retrieval system, without prior permission in writing from the publishers.

Les Bell, Mike Neary and Howard Stevenson have asserted their right under the Copyright, Designs and Patents Act, 1988, to be identified as Authors of this work.

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

ISBN: 978-1-8470-6472-1 (hardcover) 978-1-8470-6473-8 (paperback)

Library of Congress Cataloging-in-Publication Data

The future of higher education : policy, pedagogy and the student experience / edited by Mike Neary, Howard Stevenson and Les Bell. p. cm. Includes bibliographical references and index.

ISBN 978-1-8470-6473-8 (pb) ISBN 978-1-8470-6472-1 (hb)

1. Education, Higher – Aims and objectives – Great Britain. 2. Higher education and state – Great Britain. 3. Education, Higher – Economic aspects – Great Britain. 4. Educational change – Great Britain. I. Neary, Mike, 1956– II. Stevenson, Howard, 1963– III. Bell, Les, 1942– IV. Title.

LA637.F86 2009 378.41-dc22

2008039234

Typeset by Newgen Imaging Systems Pvt Ltd, Chennai, India Printed and bound in Great Britain by CPI Antony Rowe, Chippenham, Wiltshire

Contents

ice s on Contributors		vii ix
1	Introduction – Universities in Transition: Themes in Higher Education Policy Howard Stevenson and Les Bell	1
	Part One: THE POLICY CONTEXT Edited by Howard Stevenson	
2	Academic Freedom: Essential Liberty or Extravagant Luxury? Terence Karran	17
3	Learning Landscapes: Designing a Classroom of the Future Mike Neary and Angela Thody	30
4	Learning and Teaching for Sustainable Development in Higher Education: Examining Dissonance and Instructional Strategy Terfot Ngwana	42
	Part Two: PEDAGOGY AND THE INSTITUTIONAL CONTEXT Edited by Les Bell	
5	Educational Development Units: The Challenge of Quality Enhancement in a Changing Environment Julian Beckton	57
6	Continuing Professional Development in Higher Education: Tensions and Debates in a Changing Environment Karin Crawford	69

7	Technology-Enhanced Learning: A New Digital Divide? Sue Watling	83
	Part Three: THE STUDENT EXPERIENCE Edited by Mike Neary	
8	The Stretched Academy: The Learning Experience of Mature Students from Under-represented Groups Aileen Morris	99
9	Student Intelligence: Challenging Received Wisdom in Student Surveys Andy Hagyard	112
10	The Student as Producer: Reinventing the Student Experience in Higher Education Mike Neary and Joss Winn	126
11	Conclusion – The Learning Landscape: Views with Endless Possibilities <i>Pam Locker</i>	139
References		148 167
Index		

The Student as Producer: **Reinventing the Student** 10 **Experience in Higher Education**

Mike Neary and Joss Winn

Introduction

The university is one of the great success stories of the twentieth century, with numbers of students growing exponentially in the last fifty years. There are now more than 600 million students around the world, with no signs of this expansion slowing down (Wolf 2002). And yet, academics have argued that this success has come at a cost, with the intellectual and scientific mission of the university undermined by the way in which universities have allowed themselves to be redesigned according to the logic of market economics (Evans 2004).

Since the 1980s, universities, in response to government pressure, have become more business-like and enterprising to take advantage of the 'opportunities' presented by the so-called global 'knowledge economy' and 'information society' (Levidow 2002; Wright 2004). This process of corporatization of higher education is extended through the increasing regularization and intensification of the academic labour processes (Nelson and Watt 2003; De Angelis and Harvie 2006) and the reconfiguration of the student as consumer (Boden and Epstein 2006). The process of the student as consumer is driven by both the intensification and casualization of the graduate labour market which demands not only that students pay undivided attention to their employability, but also, at the same time, prepare themselves for periods of under-employability, un-employability, student poverty and debt (Bonefeld 1995; TUC-NUS 2006; Warmington 2007).

This controversial notion of student as consumer is much discussed in academic circles, but what is less well debated is the extent to which the basis of student life might be rearranged within higher education. The point of this re-arrangement would be to reconstruct the student as producer: undergraduate students working in collaboration with academics to create work of social importance that is full of academic content and value, while at the same time reinvigorating the university beyond the logic of market economics.

The nature and purpose of the university

The point at which we begin to reconstruct the student as producer begins with what is understood as the real nature or purpose of the university. There is no longer any consensus about the *idea* (Newman 1853) or the *uses* (Kerr 1963) of the university, if indeed there ever was.

While there may be no general agreement about its nature, it is clear that what constitutes the core activity of the university is teaching and research. The relationship between these two aspects of higher education is not straightforward; indeed higher education is characterized by the severe imbalance between teaching and research, leading to what has been called an 'apartheid' between student and teacher (Brew 2006). However, it is precisely this dysfunctionality that provides the catalyst for rethinking the relationship between research and teaching in a way that can construct a framework upon which to rebalance the basis of student life, providing the space to ask fundamental questions about the purposes of higher education (Brew 2006: 3).

This rationale for the relationship between teaching and research had already been established in European conventions through the *Magna Charta Universitatum*. In 1988, Rectors of European Universities gathered in Bologna and signed the *Magna Charta Universitatum* (EUA 1988) in which, as part of a wider debate about the role of the university in contemporary society, they set out the framework for an integrated system of European higher education.

The *Charta* set out some fundamental principles about the future of higher education in Europe, as well as outlining the means by which these fundamental principles could be achieved. Key to all of this was the issue of academic freedom for tutors and students and that central to the issue of academic freedom was the relationship between teaching and research. The principles included the assertion that to meet the needs of the world around it, research and teaching must be morally and intellectually independent of all political authority and economic power. Teaching and research in universities must be inseparable if tuition is not to lag behind changing needs, the demands of society and advances in scientific knowledge.

Cleary, there is more at stake than teaching students research skills. What is at issue is the recovery or the continuation of the university as a liberal humanist institution, based on some notion of the 'true university' and the 'public good'.

128 The Future of Higher Education

At around the same period in the US, Ernest Boyer was pointing out the imbalance between research and teaching and arguing for a reconfiguration of teaching and research, with teaching recognized as an important and fundamental part of academic life. Boyer provided a framework on which to consider the relationship between teaching and research, and was concerned with reinventing the relationship between teaching and learning in higher education in the US: 'The most important obligation now confronting colleges and universities is to break out of the tired old teaching versus research debate and define in more creative ways what it means to be a scholar' (Boyer 1990: xii).

Boyer encapsulated this debate with the creation of four categories of what he referred to as 'scholarship': the scholarship of discovery – research; the scholarship of integration – interdisciplinary connections; the scholarship of application and engagement – knowledge applied in the wider community; and the scholarship of teaching – research and evaluation of one's own teaching (Boyer 1990). The Boyer Commission, established in his name, set out to create its own *Magna Charta* for students in the form of an Academic Bill of Rights, which included the commitment for every university to provide 'opportunities to learn through enquiry rather than simple transmission of knowledge' (Boyer Commission 1999).

The origins of these versions of the liberal humanist university are found in the formulation that underpinned the framework for the first modern European university, the Friedrich Wilhelms University of Berlin founded in 1810. Inspired by the writings of Wilhelm Humboldt, Berlin University was organized around the principle of maintaining a close relationship between research and teaching.

In Humboldt's model (1810) of what he referred to as 'organic scholarship', the simple transmission of knowledge through lectures would be abandoned, with teaching taking place solely in seminars. Students were to be directly involved in the speculative thinking of their tutors, in a Socratic dialogue and in close contact, without strictly planned courses and curricula. Students should work in research communities with time for thinking and without any practical obligations.

Humboldt argued this in terms of academic freedom, not only betweer the student and their teacher, but in terms of the relationship between the university and the state. Humboldt's point was that in guaranteeing the academic freedom of the university, the state itself is regenerated by the way ir which the university promotes and preserves the culture of the nation. In sc doing, what he described as a 'Culture State' is established, which includes a genuinely cultured population who are trained to act as independent and autonomous citizens.

Humboldt's model was quickly overwhelmed by what he feared most: the rise of industrial capitalism and the subsumption of the 'Culture State' by the 'Commercial State', to which the university became increasingly tied through government and private sector research contracts in a process where teaching became not only detached from research, but a subordinate and less profitable activity (Knoll and Siebert 1967).

Policy and practice in teaching and research

Despite the pre-eminence of the research agenda, the nature of the core activities of higher education makes it very difficult to detach research from teaching. Indeed, the importance of maintaining research in the undergraduate curriculum was recognized in the report by the Robbins Committee on Higher Education (1963): 'there is no borderline between teaching and research; they are complementary and overlapping activities' (Committee on Higher Education 1963: 181–2), even if the chance to do research was to be made available only to the best students in the best universities (Committee on Higher Education 1963).

A similar approach based on research in the undergraduate curriculum, although aimed at a very different kind of student, was developed in 1974 at North East London Polytechnic as a programme of 'independent study'. The essential difference between such independent study programmes and Robbins' ideas for providing research in the undergraduate curriculum was that the independent study programme was designed in a way that embodied 'left-wing' ideals and made for 'a completely different approach to Higher Education' – to meet the needs of the new type of student (Pratt 1997: 138).

This debate about the appropriateness of research in non-research intensive universities was reflected in the approach advocated by the White Paper on Higher Education (DfES 2003) for 'teaching only universities'. However, in the face of reasoned opposition, there was an acknowledgement by the government of the need for the post-1992 universities to develop 'research informed teaching environments' (DfES 2003; Healey et al. forthcoming). The creation of a research environment that included undergraduate students has been encouraged by the ways in which leading US universities are linking undergraduate teaching and research. Stanford and Massachusetts Institute of Technology, most notably, have developed their own undergraduate research programmes, known generally as Undergraduate Research Opportunity Programmes. The point of these programmes is that undergraduate students work in collaboration with academics on real research projects, presenting their findings at conferences and authoring joint papers. In the United Kingdom, the lead in creating this kind of research environment for undergraduate students was taken by University of Warwick and Imperial College, London, although a number of other institutions have now followed suit. Following the success of these schemes the Higher Education Academy and the Scottish Executive Enhancement Committee have made the establishment of links between research and teaching in undergraduate programmes a key priority.

As the issue of connections between research and teaching has climbed higher up the higher education agenda the amount of research into this area has increased. One of the most unsettling conclusions was that the links between teaching and research are not nearly so well established as had been imagined (Hattie and Marsh 1996). While students enjoyed being involved with a research intensive university their actual experiences were not always positive (Zamorski 2002).

However with the closer engagement between research and teaching, where students are engaged in research-like and research-related activities, the results become much more positive. A number of powerful arguments emerge as to why and how research-based teaching and learning can raise the level and quality of teaching and learning in higher education. These include the notion that research-based learning effectively develops critical academic and evaluative skills that are used to support problem-based and inquiry-based learning and to raise the level of more traditional project work (Wieman 2004). This style of learning also equips students to continue learning after tertiary study, making links to the lifelong-learning agenda (Brew 2006). Other points in favour of research-based learning are that it encourages students to construct knowledge through increasing participation within different communities of practice (Cole 1990; Scribner 1985); this can be set against the positivist model of teaching, where faculty experts are transmitters of knowledge to the passive student recipient. It is also argued that this model of research-based learning exemplifies a social-constructivist view of learning (Vygotsky 1962, 1978; Bruner 1986; Barr and Tagg 1995). As well as encouraging participation and retention at the same time as 'elevating degree aspirations' and degree completion, research-based learning increases the likelihood that students will decide to go on to postgraduate work (Pascarella and Terenzini 2005). Moreover, recent research points to the fact that research-based learning is an attractive option for students across all ages and agendas, and particularly among mature and part-time students (Smith and Rust 2007).

Centres for Excellence in Teaching and Learning (CETLs)

In the United Kingdom, some of the most significant progress in linking teaching and research has been achieved by the CETLs that were set up in 2005 to promote research and enquiry-based learning. These include the Centre for Inquiry-Based Learning in the Arts and Social Sciences at Sheffield University (www.shef.ac.uk/cilass) which is providing rich evidence of the value of inquiry-based learning across a wide range of disciplines, from the first year of undergraduate study to taught Master's level. Part of their work is designing experimental teaching spaces: 'collaboratories' to encourage engagement between teachers and students. The Centre for Applied Undergraduate Research Skills at the University of Reading (www.engageinresearch.ac.uk) has established 'Engage', an interactive research resource for undergraduate bioscience students. At Sheffield Hallam (extra.shu.ac.uk/cetl/cplahome.html), students involved with the Centre for Promoting Learner Autonomy take responsibility for their learning and work in partnership with tutors and other students. This involves high levels of trust and risk taking by all concerned.

The work done by these CETLs contributes to the development of the research-based teaching agenda, but what these CETLs do not do is explicitly link the developments in teaching and learning with the debate about the real nature or the idea of the university.

The Reinvention Centre for Undergraduate Research (www.warwick/ ac.uk/go/reinvention), a collaborative CETL based in the Sociology department at the University of Warwick and the School of the Built Environment at Oxford Brookes, has attempted to connect the developments in teaching and learning with the debate about the future of the university (Neary et al. 2007).

132 The Future of Higher Education

The work of the Reinvention Centre is informed by the most progressive discourses of teaching and learning, such as Boyer - from whose Reinvention Commission the centre gets its name - in dialogue and debate with social science critical traditions. The result is a more radical agenda than is normally found in mainstream teaching and learning activity, but one that is grounded in the traditions of its own subject areas. The framework within which the Reinvention Centre defines its activity within the CETL programme is one of Skelton's excellence paradigms: the concept of 'critical excellence' (Skelton 2005).

The critical approach to excellence, as defined by the Reinvention Centre, sees institutional change as the outcome of conflict and struggle, forming part of a much wider social, political and economic context beyond the institution. This approach, which can claim much of its legitimacy from the student protests in 1968, and the progressive forms of teaching and learning that developed out of these protests, aims to radically democratize the process of knowledge production at the level of society. For this critical model, institutional and social change is not simply the product of incremental policy changes, strategic planning or teaching innovation, but emerges out of much wider social, political and economic processes, resulting in 'paradigm shifts' (Kuhn 1970) and revolutionary transformations in the practice of teaching and learning.

Critical in this sense does not mean 'negative judgements', but rather, negative dialectics (Adorno 1966) – the positive power of negative thinking (Fuller 2005), or the awareness of the progressive possibilities that are inherent in even the most contradictory and dysfunctional contexts. This approach is inspired by the Frankfurt School including, among others, the work of Walter Benjamin, one of the most creative modern Marxist thinkers.

In Life of Students, Benjamin writes about the separated nature of higher education, as 'a gigantic game of hide and seek in which students and teachers, each in his or her own unified identity, constantly push past one another without ever seeing one another' (Benjamin 1915: 39). Even in the early twentieth century, Benjamin was critical of the lecture and seminar formats:

The most striking and painful aspect of the university is the mechanical reaction of the students as they listen to a lecture [and seminars which] mainly rely on the lecture format, and it makes little difference whether the speakers are teachers or students. (Benjamin 1915: 42)

Benjamin had his own version of student as producer, referring back to the origins of the Humboldtian university:

The organisation of the university has ceased to be grounded in the productivity of its students, as its founders had envisaged. They thought of students as teachers and learners at the same time; as teachers because productivity implies complete autonomy, with their minds fixed on science instead of the instructors' personality. (Benjamin 1915: 42)

By the 1930s, in an article entitled 'Author as Producer', Benjamin extended these ideas of productive autonomy between students and teachers and looked beyond the university to include relationships between authors and their readers. The purpose of these connections was to find ways in which intellectuals might engage with matters of serious social concern in practices that lay beyond simply being committed to an issue, or through disengaged academic forms of solidarity.

Benjamin argued that intellectual work could only be politically progressive if it satisfied two criteria. First, it must be of high quality, and second, it must seek actively to intervene in 'the living context of social relations', what Benjamin referred to as the 'organising function', in ways that seek to create progressive social transformation:

[For] . . . the author who has reflected deeply on the conditions of present day production . . . His work will never be merely work on products but always, at the same time, work on the means of production. In other words his products must have, over and above their character as works, an organizing function. (Benjamin 1934: 777)

The organizing function within which Benjamin was writing was the social relations of capitalist production, defined through the logic of waged labour and private property. For Benjamin, the imperatives of capitalist production had led to the horrors of Bolshevism and Fascism. Therefore, any alternative form of the organizing principle must be antithetical to these extreme types of political systems and be set up on the basis of democracy, collectivism, respective for legitimate authority, mutuality and social justice.

Benjamin offered examples of this type of organizing principle from the most progressive forms of political art: Dada, Brecht's Epic Theatre and experimental Russian avant-garde art. Key to these art forms was involving the reader and spectator in the process of production: not only are they the producers of artistic content, but collaborators of their own social world; the subjects rather than objects of history.

What matters is the exemplary character of production, which is able, first, to induce other producers to produce, and, second, to put an improved apparatus at their disposal. And this apparatus is better, the more consumers it is able to turn into producers – that is, readers or spectators, into collaborators. (Benjamin 1934: 777)

In the context of the modern university, the organizing function is the law of market economics, redefined in the contemporary period as the neo-liberal university. While the dangers that defined Benjamin's world have been overcome, the risk of the re-emergence of regressive political movements has not been eradicated and new risks and possible catastrophes have emerged that place human society in peril. The question remains as to the extent to which market economics is implicated in these social, political and economic hazards and what kind of alternative organizing principles might be invented as progressive alternatives.

The Reinvention Centre offers no simple solutions to these questions; rather, following Benjamin, it pays attention to the quality of its academic outputs and considers its position in relation to the organizational function of the university and the social, economic and political context from which it is derived. Taking its cue from Benjamin's 'Author as Producer', the Reinvention Centre has challenged the consumerist discourse that pervades the student experience by inventing the concept of the student as producer. Building on work that is already ongoing in the academy and in debate with colleagues working in the most progressive liberal humanist traditions, the Reinvention Centre has been pushing the idea of the student as producer to the limits of its critical potential, as reflected in the nature and character of its work with students (**www.warwick.ac.uk/go/reinvention**). This work has included publishing an edited collection of student work, developing an online undergraduate student journal and writing and producing films with students (Neary et al. 2007).

General intellect

In the most recent period progressive Marxist writing on universities has focused on the notion of the 'general intellect'. The general intellect, Marx argued, is the inventive, creative force of capitalism.

Nature builds no machines, no locomotives, railways, electric telegraphs, selfacting mules etc. These are products of human industry: natural material transformed into organs of the human will over nature, or of human participation in nature. They are organs of the human brain, created by the human hand: the power of knowledge, objectified. The development of fixed capital indicates to what degree general social knowledge has become a direct force of production, and to what degree, hence, the conditions of the process of social life itself have come under the control of the general intellect and been transformed in accordance with it. (Marx 1993: 706)

Dyer-Witheford has shown that Marx's notion of the general intellect is mobilized by the automation of machinery and the development of transportation and communication networks integrated into the 'world market' (Dyer-Witheford 1999: 484). This mobilization of the general intellect increasingly subordinates and eliminates the need for human labour and therefore the very thing on which capitalist expansiveness is based. Furthermore, Marx argued that technoscientific development which relies on the general intellect is increasingly a social, co-operative endeavour. As we come to realize this, the organizing principles on which capitalist production is based, wage labour and private ownership, become increasingly irrelevant.

Automation and socialisation together create the possibility of – and necessity for – dispensing with wage labour and private ownership. In the era of general intellect 'Capital thus works towards its own dissolution as the form dominating production'. (Dyer-Witheford 1999: 485)

However, as capitalism continues to thrive on technological innovation and development, Marx's general intellect is found to be not 'general' at all but, rather, structured and hierarchical. Knowledge remains contained, under control and restricted to the privileged under the logic of the information society and the knowledge economy. The point and the problem is how to generalize and socialize Marx's general intellect in order to resist what Noble argues is, within the university context, the 'systematic conversion of intellectual activity into intellectual capital, and, hence, intellectual property' (Noble 1998). In order to generalize the general intellect, the issue becomes not mass education but the notion of 'mass intellectuality' (Virno 1996; Virno and Hardt 1996; Hardt and Negri 2000).

Dyer-Witheford shows that what Marx defined as the 'general intellect' is now better understood as the 'mass intellect'. This is the social body of knowledge, modes of communication and co-operation and even ethical preoccupations which both supports *and* transgresses the operation of a high-tech economy. It is not knowledge created by and contained within the university, but is the 'general social knowledge' embodied by and increasingly available to all of us. The quintessential expression of this general social knowledge or 'mass intellect' is, Dyer-Witheford argues, the internet:

The development of this extraordinarily powerful technology has in fact depended on a mass of informal, innovatory, intellectual activity – 'hacking' – on whose creativity commerce constantly draws even as it criminalizes it. It was precisely out of capital's inability to contain such activity that there emerged the astounding growth of the Internet. This is surely the quintessential institution of 'general intellect'. For, despite all the admitted banalities and exclusivities of Internet practice, one at moments glimpses in its global exchanges what seems like the formation of a polycentric, communicatively-connected, collective intelligence. (Dyer-Witheford 1999: 498)

Mass intellectuality thrives on the porosity of the internet, leaking into emerging spaces and flowing against capital's networks, transgressing intellectual property on an epidemic scale.

For the progressive academic and student producer, a model for an alternative organizing principle exists in the various forms of Free Culture, a movement defined by the work of Lawrence Lessig and further enabled by the development of the Creative Commons licences. Lessig and others before him focus on the way traditional copyright law works against the development of mass intellectuality by restricting creativity and the collaborative, derivative development of knowledge. The dominant culture, he argues, is a 'permission culture', one in which 'creators get to create only with the permission of the powerful, or of creators from the past' (Lessig 2004: xiv).

Using rights guaranteed by copyright law, creative works produced under forms of this license can be distributed and modified by anyone, as long as the work remains attributable to the original authors (**creativecommons.org**). Dyer-Witheford (1999) refers to 'hackers', using the term in the original sense of someone who delights in a complete understanding of internal working of a computer system. These hackers have successfully employed similar 'open source' licenses for over twenty years (St. Laurent 2004) to protect both their work and its means of production. A Creative Commons license provides legal protection for copyright holders who wish to contribute to an open, social body of knowledge which transgresses the dominant operations of a capitalist economy by explicitly renouncing traditional intellectual property rights, and contributes to a mass intellect in commons. The Free Culture movement, based upon collaboratively producing intellectual and creative works under Creative Commons style licenses, therefore resists the restrictive control of traditional forms of legal protection designed to support the notion of 'intellectual property' and the 'permissive' economic model by which capital trades in such questionable assets (Lessig 2004). This enables both students and academics to do more than restructure curricula and pedagogy, but to challenge the very organizing principles upon which academic knowledge is currently being transmitted and produced. In this way, the student can truly be seen as a producer of knowledge.

Conclusion

In this chapter, we have set out to provide an overview of recent critical responses to the corporatization of higher education and the configuration of the student as consumer. We have also discussed the relationship between the core activities of teaching and research and reflected on both nineteenth century discourse and more recent efforts to re-establish the university as a liberal humanist institution, where teaching and research are equal and fundamental aspects of academic life. While recognizing recent efforts which acknowledge and go some way to addressing the need for enquiry-based learning and constructivist models of student participation, we have argued that a more critical approach looks at the wider social, political and economic context beyond the institution and introduces the work of Benjamin and other Marxist writers who have argued that a critique of the social relations of capitalist production is central to understanding and remodelling the role of the university and the relationship between academic and student.

The idea of student as producer encourages the development of collaborative relations between student and academic for the production of knowledge. However, if this idea is to connect to the project of refashioning in fundamental ways the nature of the university, then further attention needs to be paid to the framework by which the student as producer contributes towards mass intellectuality. This requires academics and students to do more than simply redesign their curricula, but go further and redesign the organizing principle, (i.e. private property and wage labour), through which academic knowledge is currently being produced. An exemplar alternative organizing principle is already proliferating in universities in the form of open, networked collaborative initiatives which are not intrinsically anti-capital but, fundamentally, ensure the free and creative use of research materials. Initiatives such as Science Commons, Open Knowledge and Open Access, are attempts

138 The Future of Higher Education

by academics and others to lever the internet to ensure that research output is free to use, re-use and distribute without legal, social or technological restriction (**www.opendefinition.org**). Through these efforts, the organizing principle is being redressed creating a teaching, learning and research environment which promotes the values of openness and creativity, engenders equity among academics and students and thereby offers an opportunity to reconstruct the student as producer and academic as collaborator. In an environment where knowledge is free, the roles of the educator and the institution necessarily change. The educator is no longer a delivery vehicle and the institution becomes a landscape for the production and construction of a mass intellect in commons.