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Marketizing Higher Education: Neoliberal Strategies and Counter-Strategies

Les Levidow

'Underlying the market orientation of tertiary [higher] education is the ascendance, almost worldwide, of market capitalism and the principles of neo-liberal economics.'

– World Bank report (Johnstone et al., 1998)

'Along with healthcare, education is one of the last fortresses to be stormed. A broad market-oriented reform of the public service of education is underway.'

-- Moyoto Kamyia, *UNESCO Courier*, December 2000

1. Introduction: marketization agendas

Higher education has special stakes for ruling ideologies and strategies. Universities represent the needs of the state and capital as the needs of society, while adapting the skills of professional workers to labour markets. Despite this role, often spaces are created for alternative pedagogies and critical citizenship.

As part of that long-standing conflict, marketization tendencies have a long history. Student numbers have increased, while teaching has been under-resourced and so appears as an 'inefficiency' problem, to be solved by standardizing curricula. Knowledge has been packaged in textbook-type formats, so that students become customers for products. As a US critic once remarked, 'the various universities are competitors for the traffic in merchantable instruction' (Veblen, 1918: 65).

Recent tendencies have been called 'academic capitalism'. Although university staff are still largely state-funded, they are increasingly driven into entrepreneurial competition for external funds. Under such pressure, staff devise 'institutional and professional market or market-like efforts to secure external monies' (Slaughter and Leslie, 1997).¹

Beyond simply generating more income, higher education has become a terrain for marketization agendas. Since the 1980s universities have been urged to adopt commercial models of knowledge, skills, curriculum, finance, accounting, and management organization. They must do so in order to deserve state funding and to protect themselves from competitive threats, we are told. Moreover, higher education has become more synonymous with training for 'employability'.

These measures threaten what many people value in universities, e.g. the scope for critical analysis. Marketization agendas have provoked new forms of resistance around the world. An extreme case was the 1999-2000 student occupation of UNAM, the Autonomous National University of Mexico, which became a test case for potential privatization of all public services.

Recent conflicts over educational values have intersected with debates over Information and Communication Technology. ICT is designed and used in ways which favour some agendas rather than others. In the ruling ideology, marketization imperatives are attributed to inherent socio-economic qualities of ICT. If accepted as inevitable, this scenario becomes self-fulfilling.

¹ For such pressures on teaching, other relevant analyses include: Agre, 1999, 2000; Dutton, 1996; Smith and Webster, 1997. Also relevant are marketization pressures on academic research, which has its own critical literature, e.g. Demeritt, 2000; Evans, 2001; Harvey, 1998; Harvie, 2000; Monbiot, 2000, chapter 9.

The resulting conflicts can be analysed within wider neoliberal strategies for reshaping society on the model of a marketplace. The original nineteenth-century liberalism idealized and naturalized 'the market' as the realm of freedom; its militants pursued this vision through land enclosures and 'free trade', while physically suppressing any barriers or resistance as unnatural 'interference'. By analogy, today's neoliberal project undoes past collective gains, privatizes public goods, uses state expenditure to subsidize profits, weakens national regulations, removes trade barriers, and so intensifies global market competition. By fragmenting people into individual vendors and purchasers, neoliberalism imposes greater exploitation upon human and natural resources.

As this article will argue, neoliberal strategies for higher education have the following features:

- all constituencies are treated through business relationships;
- educational efficiency, accountability and quality are redefined in accountancy terms;
- courses are recast as instructional commodities;
- student-teacher relations are mediated by the consumption and production of things, e.g. software products, performance criteria, etc.

Neoliberal strategies have been devised for marketizing higher education on a global scale. Each geopolitical context provides an extreme case or component of more general tendencies. It is important to draw links among those contexts and among critical perspectives for analysing them. To do so, this article proceeds as follows:

- the 'information society' as a paradigm for ICT in education;
- the World Bank 'reform agenda' for the self-financing of higher education;
- Africa, where higher education is being forcibly marketized and standardized through financial dependence;
- North America, where some universities attempt to become global vendors of instructional commodities;
- Europe, where state bodies adopt industry agendas of labour flexibilisation as an educational model, in the guise of technological progress;
- the UK, where ICT design becomes a terrain for contending educational agendas; and
- global implications for counter-marketization strategies.

Overall the article develops concepts of fetishism and reification in order to analyse how neoliberal strategies promote their own socio-political models as the only possible future. The analysis aims to inform counter-strategies and alternatives.

2. 'Information society' paradigm

2.1 Training 'knowledge workers'

Central to the neoliberal project are concepts of the 'information society' and the 'knowledge economy', which derive socio-political imperatives from technological change. According to the 'info-society' paradigm, the management, quality and speed of information become essential for economic competitiveness. Technological and market modernization become conceptually linked in a forced march towards an inevitable future. This scenario leaves government only the management task of 'finding security and stability in a world pushed ever faster forward by the irresistible forces of history and human invention', according to Prime Minister Tony Blair (quoted in Robins and Webster, 1999: 45).

In 'info-society' paradigm, Information and Communication Technology (ICT) is dependent upon highly skilled labour; together they will be used in order to increase productivity and to provide new services, we are told. On that basis, ICT is promoted for greater access to life-long distance learning. Consequently, 'the workers of tomorrow will be able to recycle themselves at their own expense during their free time', as one critic argues (Hirtt, 2000: 13).

A related concept is the 'knowledge economy'. This suggests that greater 'human capital' will be necessary to enhance worker creativity, to use information productively, to raise the efficiency of the service economy, to achieve economic competitiveness and thus to maintain employment. In effect, 'human capital' individualizes skills that can exist only in a social collectivity or network; thus the concept fetishizes social skills as properties of individuals (for a critique, see Fine, 2000).

According to the 'knowledge economy' scenario, jobs will have a greater requirement for 'transferable skills' and cognitive capacities.² Labour markets will face a skills shortage, and workers will need reskilling so that they remain flexibly employable in a labour market beset by insecurity. Therefore societies must invest more in 'human capital'.

Yet many jobs are following contrary trends. 'Knowledge' workers face an overload of information to evaluate, spend more time dealing with it, and thus may have even lower efficiency than before. An information overload may even reduce capacity for new ideas. In any case, it is difficult to demonstrate such input-output correlations in practice (Garnham, 2000).

Moreover, job specifications have generally not increased the requirement for cognitive capacities. Nevertheless many employers have required workers to have qualifications beyond those needed to carry out the job. As a student lamented, 'You have to work harder to get a worse and worse job' (quoted in Ainley and Bailey, 1997).

This 'qualification inflation' is due to excess supply rather than any inherent demands of the job. In the USA, for example, skill levels have risen while wage levels have fallen for comparable jobs (Gottschalk, 1998). Indeed, job structures often reduce 'knowledge' to information-processing, rather than require the skill of evaluating information, much less producing new knowledge.

As qualification inflation devalues university degrees, the 'employability' agenda attributes unemployment, under-employment or job insecurity to individual deficiencies. The putative remedy is flexible, frequent reskilling which supposedly will help graduates to find new jobs, and perhaps even to bargain for higher salaries. Although this outcome may be realized for some professional workers, they face a perpetual responsibility to retrain themselves as a pre-condition for employment.

Further to neoliberal ideology, universities must raise their own productivity in order to survive. They must package knowledge, deliver flexible education through ICT, provide adequate training for 'knowledge workers', and produce more of them at lower unit cost. While this scenario portrays universities as guiding social change, there is evidence of a reverse tendency: that they are becoming subordinate to corporate-style managerialism and income-maximization. For neoliberal strategies, the real task is not to enhance skills but rather to control labour costs in the labour-intensive service sector, e.g. education (Garnham, 2000).

ICT can relate people to each other and define skills in various ways. Some networks are designed to facilitate electronic exchanges among students (e.g. Passerini and Granger, 2000). ICT usage can help to democratize educational access, e.g. by helping students to learn at their own pace, or by creating 'virtual communities' of interest in particular issues. Alternatively, it can help to commodify and standardize learning, e.g. by extending the authoritative approach of textbook-based knowledge (Johnston, 1999).

According to some educators who design internet-based courses, their use can lower personal contact and thus reduce student motivation: 'Many students need the personal interaction', so they readily lose interest. Thanks to ICT, 'We have cleverer ways in which we can search for information, but it still needs to be filtered, sifted', i.e. interpreted (interviews quoted in Newman and Johnson, 1999). Neglected here is a fundamental question: to seek and evaluate information for what purposes?

² Although this may be true, such skills are associated in practice with elite educational institutions and their characteristic student intake. Training in 'transferable skills' would be interpreted by employers as compensatory education for deficient individuals (Robins and Webster, 1999: 175-87). Such skills have no inherent relation to ICTs.

2.2 Ideological roles

While the 'info-society' paradigm has been rightly criticized as ideological, it does more than simply to mis-represent reality. Its language serves to naturalize particular practices as objective imperatives. Indeed, not simply the language but also the practices themselves are ideological. Their role can be analysed as fetishism and reification, as sketched here. Let us examine neoliberal accounts of technology, skills and efficiency.

According to the Director-General of the WTO, 'There are technical reasons for the acceleration of trade in services, especially in the area of information technology'. Through electronic transmission, local services have been 'transformed into internationally tradeable products' such as education services, he argues (Moore, 1999). In his account, some current tendencies are projected into an inevitable future, to which we must adapt through rules for trade liberalisation. A political agenda is fetishized as an inherent property of electronic media. Of course, info-tech does facilitate long-distance access to diverse educational materials and accreditation of student achievement, yet this technical capacity could take many social forms.

The forms matter because the neoliberal account is not merely rhetorical: its agenda can be promoted through technological design as well as language. According to one analyst, computer systems are designed by selecting a metaphor (rather than others) and translating it into hardware or software: 'And this is where technology can become ideological: if you believe that information technology as such inevitably brings markets, or hierarchies, or freedom, or modularity, or conflict, or God-like control over human affairs, then you may not even recognize that you have choices' (Agre, 1999). Potential choices are pre-empted by fetishizing the preferred metaphor as a property of technology.

ICT exemplifies how knowledge is codified and embedded in technologies. As human qualities are fetishized as properties of things, those things acquire human-like qualities – e.g., smart weapons, environmentally clean products, precise techniques, efficient computers, etc. This fetishism is not a false appearance. Rather, it is a real process of investing qualities in things – e.g. by designing a social metaphor into technology, by standardizing particular knowledges, by embedding those knowledges in the design – thus favouring some purposes rather than others. By such means, greater control can be shifted to those who exploit or manage labour.

Control can be structured in impersonal and indirect ways. Behind the rhetoric of 'quality control', teachers are being displaced by putative experts in standardized quantitative methods of performance measurement (Klausenitzer, 2000). Teachers themselves may internalize and implement such methods. Consequently, social relations take the form of relations between things – e.g., between the producers of educational software and their consumers.

These dynamics have analogies to commodity exchange, whereby social relations are actively reified as relations between things. 'To the producers, the social relations between their private labours *appear as what they are*, i.e. they do not appear as direct social relations between persons in their work, but rather as material relations between persons and social relations between things' (Marx, 1976: 163). This reification coincides with attempts at extending commodity exchange to more areas of social activity, e.g. by measuring transactions according to standard criteria.

Such measures as performance indicators tend to marketize social activities, thus subordinating professional judgements to accountancy. The neoliberal project has 'sought to create simulacra of markets governed by economic or para-economic criteria of judgement in arenas previously governed by bureaucratic or social logics: the new techniques were those of budgets, contracts, performance-related pay, competition, quasi-markets and end-user empowerment' (Rose, 1999: 146). Such techniques turn services into simulacra of commodities, e.g. by subjecting the content to input-output criteria, regardless of whether the products of labour are literally sold as commodities.

Indeed, 'efficiency' criteria presuppose standardization. Modern bureaucracy homogenizes diverse, heterogeneous qualities into universally comparable ones, thus allowing social qualities to be quantified. This process is 'the precondition of calculable *efficiency* – of universal efficiency...', argued Marcuse (1978).

Moreover, technology is specially designed for such purposes: 'Specific purposes and interests... enter the very construction of the technical apparatus' (ibid.). In developing machinery, 'the social characteristics of their labour come to confront the workers, so to speak, in a capitalised form; thus

machinery is an instance of the way in which the visible products of labour take on the appearance of its masters' (Marx, 1976: 1055).

Thus alien purposes are embedded in technology, albeit with a pretence of neutral efficiency. New technologies are designed for managing, disciplining, exploiting and/or expelling human labour, as various critics have argued (e.g. Robins and Webster, 1985). In more recent history, such strategies have been extended from the production of commodities to the reproduction of labour power for capital. Not surprisingly, then, controversy often erupts over the criteria for technological design and efficiency.

In the case of higher education, then, we can ask: efficiency for what qualities, values, and social relations? information for whose interests and control? With such questions in mind, the dominant policy language can be analysed as both ideological and material. It provides weapons to naturalize, impose and legitimize an agenda of marketizing social relations.

3. World Bank 'Reform Agenda'

As promoted by the international financial institutions, trade liberalisation generates a virtuous circle of market access, technology, efficiency, etc. As the neoliberal worldview asserts,

Markets promote efficiency through competition and the division of labour – the specialisation that allows people and economies to do what they do best. Global markets offer greater opportunity for people to tap into more and larger markets around the world. It means that they can have access to more capital flows, technology, cheaper imports, and export markets (IMF, 2000).

On the contrary, as many critics have argued, trade liberalisation is generally designed to serve capitalist profitability. It throws people into more intense competition with each other on a global scale, thus preventing people from deciding collectively 'what they do best' and what kind of economic relations to develop with each other.³ Prime agents are the IMF and World Bank, which elaborate the strategies of their paymasters in the dominant OECD countries. In the neoliberal project, US capital serves both as a prime driving force and as a model for its imitators or partners elsewhere.

For several years the World Bank has been promoting a 'reform agenda' on higher education. Its key features are privatization, deregulation and marketization. According to a World Bank report,

The reform agenda... is oriented to the market rather than to public ownership or to governmental planning and regulation. Underlying the market orientation of tertiary education is the ascendance, almost worldwide, of market capitalism and the principles of neo-liberal economics (Johnstone et al., 1998).

From a neoliberal standpoint, what is the problem – and opportunity? As a private good, higher education is in limited supply, not demanded by all, and is available for a price. Consumers (business and industry) are 'reasonably well informed', while the providers (administrators and faculty) are 'often ill informed – conditions which are ideal for market forces to operate'. Fulfilling the demand therefore requires measures to make higher education completely self-financing.

Having defined the problem in this way, the report identifies the traditional university and its faculty members as the main obstacles to a solution:

Radical change, or restructuring, of an institution of higher education means either fewer and/or different faculty, professional staff, and support workers. This means lay-offs, forced early retirements, or major retraining and reassignment, as in: the closure of inefficient or ineffective institutions; the merger of quality institutions that merely lack a critical mass of operations to make them cost-effective; and the radical alteration of the mission and production function of an

³ Consider the story of how IMF-World Bank policies have led Mozambique to shut down its facilities for processing cashew nuts. Contrary to the IMF quote above, the neoliberal project readily blocks technological capacity and market access when their main beneficiaries are local populations rather than multinational companies. See the article by Joseph Hanlon, www.jubilee2000uk.org/policy-papers/roape10400.htm.

institution – which means radically altering who the faculty are, how they behave, the way they are organized, and the way they work and are compensated (Johnstone et al., 1998).

This diagnosis identifies teachers and their traditional protections as the obstacle to market-based efficiencies. In its future scenario, higher education would become less dependent upon teachers' skills. Students would become customers or clients. As the implicit aim, private investors would have greater opportunities to profit from state expenditure, while influencing the form and content of education. Business and university administrators would become the main partnership, redefining student-teacher relations.

The World Bank report soon became a political weapon for recasting academic freedom as a commitment to neoliberal futures. University administrations have sought to characterize academic freedom as a duty 'to uphold the balance' between 'the spiraling demand for higher education on the one hand, and the globalization of economic, financial and technical change on the other'. At a UNESCO conference in October 1998, this conflict was ultimately fudged by declaring that faculty members should enjoy 'academic freedom and autonomy conceived as a set of rights and duties, while being fully responsible and accountable to society' (documents quoted in CAUT, 1998b).

Presumably the university administrations meant 'accountable' to a neoliberal globalization agenda, not to the forces resisting it. Indeed, academic accountability often means subordination to accountancy techniques. In response to these attacks, professional societies have defended academic freedom as a right of free expression.

Although the World Bank agenda has little support among educators, some elements may be implemented. Its extreme proposals may inadvertently help us to understand marketization agendas which are being driven by wider political-economic forces around the world. Let us survey Africa, North America and Europe as different examples and components of a global neoliberal project.

4. Africa: SAPs for recolonization

Higher education has become a casualty of the overall neoliberal policies imposed on highly indebted countries of the South. By the late 1970s these countries faced a 'balance of payments' deficit for many reasons – e.g. because their main exports suffered a world decline in prices, while oil imports became more expensive. As their governments could no longer repay even the interest on the national debt, their currency lost value, and they were denied credit for further imports.

The IMF and World Bank turned these national debts into an opportunity to impose Structural Adjustment Programmes (SAPs) in the 1980s. Indebted governments were required to reduce spending, to privatize industry and services, to cheapen labour, to open up markets to multinational companies, to relax controls on capital movements, to weaken environmental and labour protection laws, to devalue their currencies, etc.

'Growth-oriented loans' were granted to countries which accepted those 'conditionalities'. According to the World Bank, such measures would help governments to reduce budget deficits, reduce the balance-of-payments deficit, control inflation, and thus create conditions for resumed growth. In practice, local industries were driven out of business, many jobs were lost, rural people lost their access to cultivable land, and fees were imposed for health and education services. The main 'growth' has come from people working more in order to pay more than before for goods or services – apart from the 'growth' of multinational companies buying up local assets on the cheap (see examples in FGS, 2000).

Consequently, higher education has suffered in all Southern countries, especially in Africa, which was singled out for special treatment. According to World Bank reports on African countries, investment in higher education was benefiting mainly the social elites there, and it had a lower social return than investment in primary education. As yet another conditionality, they were told to reduce funding of higher education, in the name of both egalitarian and efficiency criteria. The costs were transferred to private households, e.g. through student fees or education vouchers (Klausenitzer, 2000). Thanks to SAPs, governments would have an opportunity to 'increase the efficiency of resource use', declared World Bank consultants.

That neoliberal agenda had different motivations than the publicly stated ones. African governments were regarded as too weak to discipline labour for foreign investors and thus as inadequate managers

of public services. More importantly, university faculty and students there were foremost critics of SAPs, often catalysing wider political opposition. In many cases universities were invaded by repressive forces or simply shut down (Federici et al., 2000).

Given the great resistance, the neoliberal strategy was to create means by which African universities could be intellectually recolonized, in at least two senses. The general effect of SAPs, combined with tuition fees, effectively limited university access to an elite – far more so than beforehand. Eventually the World Bank acknowledged the worsening quality of African higher education, though not its own responsibility for this outcome. As a remedy, the World Bank promoted 'capacity building' there through direct funding. Through this financial dependence, African universities could be pressurized to change their educational content along lines acceptable to the World Bank (ibid.).

In the name of development, the World Bank and UNESCO have sponsored an African Virtual University. It links several African educational institutions with teachers from well-known ones elsewhere, through live digital satellite tv broadcasts and video tapes. Courses emphasize ICT and marketing skills (www.avu.org), perhaps appropriate to neoliberal development models.

Under neoliberal constraints, then, universities substitute new staff, standardize curriculum materials, and marginalize local knowledges. Meanwhile governments repress resistance to such 'reforms'. Within Africa and elsewhere, resistance has been publicized by the Campaign for Academic Freedom in Africa (CAFA, 1995-99).

By contrast to Africa, the neoliberal agenda in Western countries promotes corporate appropriation of state subsidy, rather than its reduction. The African case may inadvertently illuminate the more subtle colonization of higher education there, mediated by ICTs.

5. North America: courses as instructional commodities

In North America many universities have adopted entrepreneurial practices. They act not only as business partners, but also as businesses in themselves. They develop profit-making activities through university resources, faculty and student labour (Ovetz, 1996).

Within an entrepreneurial agenda, universities have developed on-line educational technology, i.e. electronic forms of course materials. Of course, this medium could be used to enhance access to quality education, and to supplement face-to-face contact, as some European universities have been doing for a long time. In North America, however, the aims have been clearly different – namely, to commodify and standardize education.

Those aims have been resisted by students and teachers. For example, in 1997 UCLA established an 'Instructional Enhancement Initiative', which required computer web sites for all its arts and sciences courses. Its aims were linked with a for-profit business for on-line courses, in partnership with high-tech companies. Similar initiatives at York University led to a strike by staff, backed by the students. They raised the slogan, 'the classroom versus the boardroom' (Noble, 1998). Critics have held conferences to devise opposition strategies (e.g. Winner, 1998).

What problem was the new technology supposed to solve? After university rules were changed to permit profit-making activities, their research role was commodified. Substantial resources were shifted from teaching to research activities, which were expected to result in patents and royalties. With less staff time devoted to teaching, student-teacher ratios increased, thus increasing the burden on them both. This result of profit-seeking was represented as an inherent problem of educational inefficiency.

From that standpoint, the logical solution is to increase efficiency by standardizing course materials. Once lectures are submitted to administrators and posted on webpages, these materials can be merchandised to other universities. Better yet, the course-writing can be outsourced on contract to non-university staff. By transferring control to administrators, the technology can be designed to discipline, deskill and/or displace teachers' labour.

This approach changes the role of students, who become consumers of instructional commodities. Student-teacher relationships are reified as relationships between consumers and providers of things. This marginalizes any learning partnership between them as people.

Students readily become objects of market research. In Canada, for example, universities have been given royalty-free licenses to Virtual U software in return for providing data on its use to the vendors. When students enrol in courses using this software, they are officially designated as 'experimental subjects', who grant permission for the vendor to receive all their 'computer-generated usage data' (Noble, 1998).

A marketization model can be extended to sell courses, potentially to anyone in the world. Even third parties can sell new commodities which redefine educational skills. For example, by 1998 IBM's Lotus Corporation had already sold its Total Campus Option software to more than a million students. The company hoped that these future workers would thereby acquire 'a Lotus brand preference and relevant skills: the campus is the starting point of the sales cycle to the corporate world with whom we conduct business'. From these extreme cases of private universities and computer companies, we can better recognize more subtle forms in Europe.

6. Europe: ICT for flexible learning

The European education debate has been ideologically framed by the supposed imperatives of an 'information society'. This is conceptualized differently by 'market' models versus 'social' models of Europe (de Miranda and Kristiansen, 2000). Dominant so far has been a neoliberal agenda of individual flexibilized learning for labour-market needs.

6.1 ERT agenda

A neoliberal agenda has been promoted effectively by the European Round Table (ERT) of Industrialists since the 1980s (Balanyá et al., 2000). Its problem-definitions have been adopted by leading politicians and European Union officials. In particular the ERT has sought to change the form and content of education.

The ERT has regarded education and training as 'strategic investments vital for the future success of industry'. European business 'clearly requires an accelerated reform' of educational programmes. Unfortunately, however, 'industry has only a very weak influence over the programmes taught', and teachers 'have an insufficient understanding of the economic environment, business and the notion of profit' (ERT, 1989; also ERT, 1998).

They further argued: 'As industrialists, we believe that educators themselves should be free to conduct the same kind of internal searches for efficiency without interference or undue pressures exerted on them.' European industry has responded to globalisation, but 'the world of education has been slow to respond', the authors lamented. As a remedy, 'partnerships should be formed between schools and local business' (ERT, 1995).

More recently they have promoted Information and Communication Technology as an essential learning tool – in schools today and for work tomorrow. As the key virtues cited, ICT opens up the world of knowledge, allows individual enquiry, and powerfully motivates learning (ERT, 1997). Also important is the link with 'life-long learning', necessary for Europeans to remain employable amidst the changes brought by global competition (ERT, 1995, 1997, 1998).

ICT has a more specific role in the neoliberal business agenda, as critics have argued (Hatcher and Hirtt, 1999). First, it facilitates the individualized and flexibilized learning which is required for the modern worker, who must become individually responsible for managing his/her own human capital in the workplace. Second, ICT diminishes the role of the teacher – a desirable change, e.g. because teachers have 'an insufficient understanding' of business needs, and because their present role hinders 'internal searches for efficiency', as the ERT complained.

6.2 European Commission: industry needs

As President of the European Commission, Jacques Delors basically accepted a neoliberal diagnosis in his 1993 White Paper on 'Growth, Competitiveness, Employment'. Identifying the future as an 'information society', it counselled adaptation to inexorable competitive pressures: 'The pressure of the market-place is spreading and growing, obliging businesses to exploit every opportunity available to increase productivity and efficiency. Structural adaptability is becoming a major prerequisite for economic success', e.g. by disseminating the skills essential for ICTs (CEC, 1993: 92-93).

Moreover, the White Paper mandated the public authorities 'to remove the remaining regulatory obstacles to the development of new markets'. Although not specifically mentioning education, it welcomed marketization of public services:

The ordinary citizen can have access to 'public services' on an individual basis, and these will be invoiced on the basis of the use made of them. Transferring such services to the market-place will lead to new private-sector offers of services and numerous job-creation opportunities (ibid.: 94).

Within that framework, European Commission documents and official speeches have put forward arguments similar to the ERT's. According to the chief of the Directorate-General which funds research, the ICT market is 'too weak and penalises our industry'. Therefore support is necessary to 'give our market the dimension which our industry needs' (Cresson, 1995). By using such language, society's needs are either ignored or else are equated with industry's needs.

Soon the supposed threat was made more explicit: 'It is doubtful if our continent will keep hold of the industrial place it has achieved in this new market of multimedia if our systems of education and training do not rapidly keep pace' (CEC, 1996). For the solution, government must subsidize the European ICT industry.

At the Amsterdam Summit, national governments undertook to promote 'flexible labour markets', so that the EU can 'remain globally competitive'. Accordingly, the EU Council recommended 'a restrictive restructuring of public expenditures... to encourage investment in human capital, research and development, innovation and the infrastructure essential to competitiveness'. It encouraged 'training and life-long learning' in order to improve 'the employability of workers' (EU Presidency, 1997).

Since then, official documents have promoted 'citizen education' for future workers to participate better in labour markets. They have foreseen and even welcomed a decline in the dominant role of educational institutions:

Even within the schools and colleges, the greater degree of individualisation of modes of learning – which are flexible and demand-led – can be considered as supplanting the formulas that are too heavy and dominated by the provider. It announces the consequent decline in the role of the teacher, which is also demonstrated by the development of new sources of learning, notably by the role of ICT and of human resources other than teachers (CEC, 1998).

Through such language, the empowerment of vendors and business partners is represented as greater freedom for students. A student-teacher learning relationship is potentially replaced by a consumer-producer relationship.

Further steps towards marketization appeared in the Bologna Declaration (1999), signed by twenty-nine European ministers of education, though outside any statutory framework. The Declaration was a set of measures to increase the international competitiveness and thus to enlarge the market share of the European higher education system. It undertook to create a European Higher Education Area as a means to promote citizens' mobility and employability; this could be achieved through 'greater compatibility and comparability' among curricula across countries. Although these measures could benefit some students, an implicit agenda is to standardize education as a global commodity. Exemplifying the EU's democratic deficit, moreover, the plan was drafted without involving student organizations (Oosterlynck, 2001).

7. UK: the university as a borderless business

As the vanguard of the neoliberal project in Europe, the UK epitomizes pressure towards marketizing higher education. As academics there have found since the 1980s, many developments have 'eroded the protection from pressures to render their work more commensurable with the commodity form of value' (Wilmott, 1995: 995).

The government has pressed for a substantial increase in student numbers, while providing little increase in funds. Under pressure from the Research Assessment Exercise, many university departments have shifted resources from teaching to research, while seeking more research funds from industry. For both those reasons, there have been less resources for student-teacher contact, and thus greater pressure to standardize curricula and assessment criteria. Similar pressures come from formal assessment exercises which require teachers to produce explicit 'learning aims and outcomes'.

Students have become more subject to accountancy versions of educational values. In the late 1990s the government abolished maintenance grants for most students and introduced tuition fees. As these changes led students into greater debt than before, they felt under pressure to choose academic programmes which would lead to more highly-paid jobs, rather than arts or humanities programmes, for example.

Student protests have opposed tuition fees, while linking this burden to more general dependence upon private finance: 'In providing this funding, business is assuming more direct and indirect control of our education system... Students should not be forced to choose on the basis of what [courses] businesses are prepared to make available', argues the Campaign for Free Education (CFE, 2000).

In some ways, the problem is even worse: namely, that universities themselves act more like businesses. Their marketization agendas link two neoliberal meanings of flexibility. First, student-customers (or their business sponsors) seek learning for flexible adaptation to labour-market needs, e.g. through skills expected to increase productivity. Second, global competitors flexibly design and sell courses according to consumer demand, so universities must anticipate such competition and exploit the 'world education market' (Nunn, 2002).

7.1 Just-in-time learning

For many years, such a competitive threat has been linked with ICTs. 'In due course, just-in-time electronic education, delivered to your living room by commercial companies, will undermine the most hallowed names in higher education' (Michael Prowse, *Financial Times*, 20.11.95). As an Australian vice-chancellor warned his UK counterparts, non-universities will provide electronic courses, offer degrees and not bother with being accredited, 'thus competing with universities in the education market' (quoted in McLeod, 2000). It aims to 'offer high brand value' for a 'global professional workforce' and 'corporate universities wishing to access a fast-growing international market for higher education and training' (cited in Nunn, 2002).

To protect themselves, while of course extending consumer opportunity, universities must commodify educational goods as individual learning packages. The London School of Economics has founded two electronic-education ventures. According to the chairman of UNext.com, 'We are developing just-in-time interactive learning because we believe that employed adults throughout the world have a hunger for education'. Free markets are ideally suited to the task of creating 'on-line learning solutions', which require a large amount of financial and human capital, he argues (Rosenfeld, 2000).

Perhaps taking that logic further, one neoliberal militant has declared: 'Higher education is now a no-value commodity unrelated to real costs and no basis whatsoever for an effective and efficient business... the future is always best left in the hands of discerning customers close to the marketplace' (Hills, 1999). Again, university corporatization is represented as greater freedom for the student as customer.

According to the UK's committee of university executives, the solution is to abolish borders between the university and business, as well as those between domestic and international 'markets' for educational goods. The executives promote internet-based delivery as a key means to become a 'borderless business'. Going further than the ERT diagnosis, they describe the university as already a business, albeit a deficient one which must be fixed according to corporate principles:

[Universities must create] new systems of operation which disaggregate function, increase specialisation and where outsourcing is a strong feature. It follows that universities need to give priority to identifying their core business, niche opportunities and specialist functions.... (e.g.) consistent delivery through a customer-focused approach to education and training; a widening of educational values to include company certification, learning outcomes relevant to the workplace, personal development and flexibility (CVCP & HEFCE, 2000).

According to the executives' chief, Prof. Howard Newby, universities 'are an integral part of the knowledge-based economy', thus echoing a neoliberal paradigm. 'At present we seem to be rather like the British motor industry in the 1960s – on the brink of participating in a global market, but poorly organised to take advantage of the opportunities available.' He identifies changes in undergraduate delivery: from a 'just-in-case' general intellectual training, to a more flexible 'just-in-time' ethos, and then to 'just-for-you' forms of learning (Newby, 1999).

Newby emphasizes opportunities as much as threats. In his account, critical analytical skills are to be supplanted by life-long adjustment to the needs of a flexibilized labour market. Extending a business logic, he advocates government investment in higher education as 'a sector which is absolutely central to the development of the UK as a prosperous and competitive knowledge-based economy'. He also advocates performance-related pay in order to modernise 'our human resources management'. Thus accountability is reduced to performance indicators which throw teachers into competition with each other.

7.2 E-University

Complementing that scenario, university executives cite threats from foreign competitors to justify internet-based courses. According to sponsors of the electronic-University, 'The project is designed to give UK higher education the capacity to compete globally with the major virtual and corporate universities being developed in the United States and elsewhere'. The preliminary business model 'recommended that pedagogic support should be embedded within learning materials, and that supplementary on-line support might be negotiated for individual students at a price'. This proposal generated debate about what types of social interaction must be designed into the product in order to find customers (see detail in HEFCE, 2001).

In planning an e-University, some educators emphasize that high quality cannot be achieved at low cost. Partly for this reason, many UK universities formed a holding company for jointly evaluating and selecting course material, so that they do not compete among themselves for students. At the same time, commercial criteria may play a role in defining students as 'market demand' for some types of content rather than others. A private-sector partner will handle 'the commercial aspects of content procurement to match demand', among other aspects (McLeod, 2000). Such arrangements may readily conflate the needs of business and society, e.g. through 'flexible learning' for the labour market.

Electronic media have a double-edged potential. They can broaden access to quality material and social networks which enhance critical citizenship, but only if the design emphasizes resources for creative student-teacher and student-student interaction. Given the political will, argues one academic, scholarly values 'may survive in the multi-media environment. But the tension between digitized means and these values may sharpen as learning becomes more commodified' (Harris, 2000). The effect on education depends on the social design of electronic media and the social forces which shape them.

8. Conclusion: what global counter-strategies?

In order to develop effective counter-strategies, it is necessary to analyse the various forms of marketization and their links. While only some forms extend commodity exchange, they all extend accountancy criteria for valuing education and its human products. The 'investment' metaphor readily becomes literal. Universities and their staff may be held accountable for delivering the dividends in measurable terms (Demeritt, 2000: 309).

8.1 Marketization strategies

Marketization strategies should be understood as both ideological and material at the same time. As analysed above, here are some key features.

- Efficiency as progress

In neoliberal ideology, employment insecurity is attributed to a deficiency of 'human capital' appropriate for the 'information society'. This problem is cited to justify curricula for adapting students to labour-market needs. Educational 'reforms' are presented as universal progress on grounds that they enhance efficiency, extend access, flexibly customize the content for individual needs, facilitate learning through ICT, provide accountability to students and society, yield a better return on state investment, etc. These benefits are to be measured according to 'human capital' criteria, or even according to money transactions. Whether they are literal or metaphorical, accountancy methods define the efficiency of educational progress, thus naturalizing marketization.

- Commodification

Prospective students are represented as customers/markets in order to justify commodifying educational services. Knowledge becomes a product for individual students to consume, rather than a collaborative process for students and teachers. Individualized learning both promotes and naturalizes life-long re-skilling for a flexibilized, fragmented, insecure labour market. By standardizing course materials, moreover, administrators can reduce teachers to software-writers or even replace them with subcontractors. Through ICT, neoliberal agendas take the apparently neutral form of greater access and flexible delivery. In all these ways, student-teacher relations are reified as relations between things, e.g. between consumers and providers of software.

- Neoliberal globalization

A global competitive threat and opportunity is invoked to justify commodifying all institutional arrangements. People are actively linked around the world through new market relations – as business partners, competitors, patrons, clients, customers, assessor-consultants, etc. This neoliberal internationalism is promoted within and across countries.

As SAP conditionalities forcibly marketize and standardize higher education in Third World countries, people there may become more willing customers for instructional commodities elsewhere, e.g. through distance education. Perhaps as a self-fulfilling prophecy, this marketization intensifies (or even creates) the competitive pressures from which universities needed protection in the first place.⁴ Moreover, if Western academics fill gaps left by SAPs in Third World countries, then they may collude in re-colonizing the curriculum there, unless they ally with local people who promote alternative agendas.

8.2 Counter-strategies

In response, what counter-strategies are being developed? Students and teachers have opposed plans to replace human contact with software products, while demanding educational access as a right rather than a commodity. As a defensive approach, teachers' organizations have re-asserted their professional prerogatives as experts in educational content, and they have defended academic freedom against state interference disguised as societal 'responsibilities'.

However, research questions or curricula cannot be entirely autonomous from the wider struggle over public resources, ruling ideologies and class interests. More imaginative efforts will be needed to counter the neoliberal agenda. In particular:

- Demonstrating links among neoliberal forms

Marketization measures extend far beyond formal requirements of SAPs. The pressures take more subtle forms – e.g. ideological language, funding priorities, public-private partnerships, tuition fees, cost-benefit analysis, performance indicators, curriculum changes, new technology – which often conceal the ultimate implications. Critics need to demonstrate how all these aspects are linked, how they change the content of academic work and learning, and how they arise from efforts to discipline labour for capital, as part of a global agenda.

- Linking resistances across constituencies and places

Neoliberal strategies are turning us all into fragments of a business plan, e.g. competitors, partners, customers, etc. In response, we need an international network for several purposes: to link all targets of the neoliberal attack worldwide, to circulate analyses of anti-marketization struggles, to enhance solidarity efforts, and to turn ourselves into collective subjects of resistance and learning for different futures. Such networks need to span all relevant constituencies (teachers, students, NGOs), as well as the geographical regions which are supposedly competing with each other.

⁴ Another potential weapon is the General Agreement on Trade and Services (GATS), which dates from the founding of the WTO in 1994. In the area of service delivery, GATS aims to remove any restrictions and internal government regulations that are regarded as 'barriers to trade' (Lucas, 1999; WDM, 1999; Hirtt, 2000; Rikowski, 2001). Some Western governments have suggested that trade liberalization would help their own universities to penetrate foreign markets. Some academic managers have favourably linked this aim with internet-based courses (e.g. Newby, 2001). Although that may be true in some cases, the fundamental aims are for multinational capital to colonize education, to influence the curriculum and to appropriate public subsidies. Marketization measures anywhere will provide encouragement and models for GATS.

- De-reifying Information and Communication Technology (ICT)

ICTs can be designed in ways which either facilitate a marketization agenda, e.g. by reifying student-teacher relations – or else hinder marketization, e.g. by enhancing critical debate among students and with teachers. In that vein, we need to distinguish between various potential designs for ICT, in order to dereify them as social relations. For example, Computer-Supported Cooperative Learning (CSCL) techniques are being developed to retain the collective aspects of learning at a distance. Although the internet is widely used for distributing critical analyses, we need to ensure that these analyses are included and used imaginatively in accredited courses.

- Developing alternatives

It is inadequate simply to oppose marketization or to counterpose whatever existed beforehand. Resistance would be strengthened by developing alternative pedagogies which enhance critical citizenship, cultural enrichment and social enjoyment through learning. These efforts could also stimulate debate over how to define our collective problems and aspirations, beyond making our labour more readily exploitable.⁵ In such ways, academic freedom can be linked with public debate over potential and desirable futures.

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References

- Agre, P.E. (1999) 'The distances of education', *Academe* 85(5): 37-41, also at <http://dlis.gseis.ucla.edu/pagre/>
- Agre, P.E. (2000) 'Commodity and community: institutional design for the networked university', *Planning for Higher Education* 29(2): 5-14, also at <http://dlis.gseis.ucla.edu/pagre/>
- Ainley, P. and Bailey, B. (1997) *The Business of Learning: Staff and Student Experiences of Further Education in the 1990s*. London: Cassell.
- Balanyá, Belén et al. (2000) *Europe Inc.: Regional & Global Restructuring and the Rise of Corporate Power*. London: Pluto Press (co-authored by Ann Doherty, Olivier Hoedeman, Adam Ma'anit and Erik Wesselius; see Corporate European Observatory, <http://www.xs4all.nl/~ceo>).
- Bologna Declaration (1999) Joint Declaration of the European Ministers of Education, published by the Association of European Universities, <http://www.esib.org/prague/documents/bologna_declaration.htm>, commentary at <<http://www.crue.upm.es/eurec/bolognaexplanation.htm>>
- CAFA (1995-99) *Campaign for Academic Freedom in Africa* bulletin, email caffentz@usm.maine.edu, Dinavalli@aol.com
- CAUT (1998a) 'World Bank promotes its agenda in Paris', Canadian AUT webpage, http://www.caut.ca/English/Bulletin/98_nov/lead.htm
- CAUT (1998b) 'UNESCO declaration puts academic freedom at risk', <http://www.caut.ca/English/CAUTframe.html>
- CEC (1993) 'Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century', *Bulletin of the European Communities*, supplement 6/93. Brussels: Commission of the European Communities.

⁵ See for example Hill, 1999; McLaren, 2000; Rikowski, 2001.

- CEC (1996) 'Accomplishing Europe through Education and Training'. Brussels: Commission of the European Communities, <http://europa.eu.int/comm/education/reflex/en/homeen.html>
- CEC (1998) 'Education and Active Citizenship in the European Union', <http://europa.eu.int/comm/education/citizen/citiz-en.html>
- CFE (2000) *Winning the Arguments: A Briefing by the Campaign for Free Education*, http://members.xoom.com/nus_cfe, email cfe@gn.apc.org
- Cresson, E. (1995) Speech on Socrates programme, Tours, 3 March.
- CVCP & HEFCE (2000) *The Business of Higher Education: UK Perspectives*. London: Committee of Vice-Chancellors and Principals, now Universities UK, <http://www.universitiesuk.ac.uk/> or Bristol: Higher Education Funding Council for England, <http://www.hefce.ac.uk>
- de Miranda, A. and Kristiansen, M. (2000) 'Technological determinism and ideology: the European Union and the Information Society', paper at POSTI 3 conference, <http://www.esst.uio.no/posti/workshops/miranda.html>
- Demeritt, D. (2000) 'The new social contract for science: accountability, relevance, and value in US and UK science and research policy', *Antipode* 32(3): 308-329.
- Dutton, W., ed. (1996) *Information and Communication Technologies: Visions and Realities*. Oxford: Oxford University Press.
- ERT (1989) *Education and Competence in Europe*. Brussels: European Round Table of Industrialists, <<http://www.ert.be>>
- ERT (1995) *Educations for Europeans: Towards the Learning Society*.
- ERT (1997) *Investing in Knowledge: The Integration of Technology in European Education*.
- ERT (1998) *Job Creation and Competitiveness through Innovation*.
- EU Presidency (1997) Presidency Conclusions from the Amsterdam Summit, SN 150/97, Annex, pp.10-13.
- Evans, G.R. (2001) 'The integrity of UK academic research under commercial threat', *Science as Culture* 10(1): 97-111.
- Federici, S., Caffentzis, G., and Alidou, O., eds (2000) *A Thousand Flowers: Social Struggles Against Structural Adjustment in African Universities*. Trenton, NJ/Asmara: Africa World Press.
- Fine, B. (2000) *Social Theory and Social Capital*. London: Routledge.
- FGS (2000) *Prague 2000: Why We Need to Decommission the IMF and the World Bank*. Bangkok: Focus on the Global South, <www.focusweb.org>
- Garnham, N. (2000) "'Information Society" as theory or ideology', *Information, Communication & Society* 3(2): 139-52.
- Gottschalk, P. (1998) 'Cross-national differences in the rise of earnings inequality: market and institutional factors', *Review of Economics and Statistics* 80: 489-503.
- Harris, M. (2000) 'HE of the future', *AUTLOOK* 215: 10-11. London: Assn of University Teachers, <<http://www.aut.org.uk>>
- Harvey, D. (1998) 'University, Inc.', *Atlantic Monthly*, October, <http://www.theatlantic.com/issues/98oct/ruins.htm>
- Harvie, D. (2000) 'Alienation, class and enclosure in UK universities', *Capital & Class* 71: 103-32, <http://www.cseweb.org.uk>
- Hatcher, R. and Hirtt, N. (1999) 'The business agenda behind Labour's education policy', in *Business Business: New Labour's Education Policy*, pp.12-23, London: Tufnell Press, <<http://www.tpress.free-online.co.uk/hillpubs.html>>, see also <<http://users.skynet.be/aped>>
- HEFCE (2001) E-university press releases, www.hefce.ac.uk/partners/euniv/
- Hill, D. (1999) *New Labour and Education: Policy, Ideology and the Third Way*. London: Tufnell Press, <www.tpress.free-online.co.uk/index.html>
- Hills, Sir Graham (1999) 'The university of the future', in M.Thorne, ed., *Universities of the Future*, London: (Cabinet) Office of Science and Technology.
- Hirtt, N. (2000) 'The "Millennium Round" and the liberalisation of the education market', *Education and Social Justice* 2(2): 12-18.
- IMF (2000) *Globalisation: Threat or Opportunity?* Washington, D.C.: International Monetary Fund.
- Johnston, R. (1999) 'Beyond flexibility: issues and implications for higher education', *Higher Education Review* 32: 55-67.
- Johnstone, D. Bruce, Arora, A. and Experton, W. (1998) *The Financing and Management of Higher Education: A Status Report on Worldwide Reforms*. Washington, D.C.: World Bank, Departmental Working Paper, <http://www-wds.worldbank.org>

- Joint WB/UNESCO Task Force on Higher Education and Society (2000) *Higher Education in Developing Countries: Peril and Promise*, Washington, D.C./Paris: World Bank, <<http://www.worldbank.org/html/extpb/abshtml/14630.htm>>
- Klausenitzer, J. (2000) 'The World Bank and education', *Education and Social Justice* 2(3): 37-38, 59.
- Lucas, C. 1999) *Watchful in Seattle*, <http://www.greenparty.org.uk/globalisation>
- Marcuse, H. (1978) 'Industrialization and capitalism in the work of Max Weber', in *Negations: Essays in Critical Theory*, pp. 201-26. Boston: Beacon Press; reprinted in London: Free Association Books, 1988.
- McLaren, P. (2000) *Che Guevara, Paulo Freire, and the Pedagogy of Revolution*. Lanham, Maryland: Rowman & Littlefield.
- McLeod, D. (2000) 'Clever business', *The Guardian* Education section, 28 November.
- Marx, K. (1976) *Capital*, volume 1. London: Penguin (especially 'The fetishism of the commodity and its secret', pp.163-177).
- Monbiot, G. (2000) *Captive State: The Corporate Takeover of Britain*. London: Macmillan.
- Moore, M. (1999) 'The Future of International Trade in Services', <<http://www.wto.org/wto/speeches/mm6.htm>>
- Newby, H. (1999) 'Some Possible Futures for Higher Education', <http://www.universitiesuk.ac.uk>
- Newby, H. (2001) 'Home and Away – National and International Perspectives on University Collaborations', speech at conference on 'Co-operation and collaboration: promoting strategic alliances in higher education', 23 January.
- Newman, R. and Johnson, F. (1999) 'Sites for power and knowledge? Towards a critique of the virtual university', *British Jnl of Sociology of Education* 20(1): 79-88.
- Noble, D. (1998) 'Digital diploma mills: the automation of higher education', *Monthly Review* 49(9): 38-52; also in *Science as Culture* 7(3): 355-68; other material available at <<http://thecity.sfsu.edu/~eisman/digital.diplomas.html>>, www.communication.ucsd.edu/dl/ddm2.html
- Nunn, A. (2002) 'GATS, higher education and 'knowledge-based restructuring' in the UK', *Education and Social Justice* 4(1): 32-43.
- Oosterlynck, S. (2001) 'The Bologna Declaration: towards the construction of an European Higher Education Market?', *Education and Social Justice* 3(2): 24, email stijn_oost@yahoo.com
- Ovetz, R. (1996) 'Turning resistance into rebellion: student struggles and the global entrepreneurialization of the universities', *Capital & Class* 58: 113-52, <http://www.cseweb.org.uk>
- Passerini, K. and Granger, M. (2000) 'A developmental model for distance learning using the Internet', *Computers & Education* 34: 1-15.
- Rikowski, G. (2001) *The Battle in Seattle: Its Significance for Education*. London: Tufnell Press, <<http://www.tpress.free-online.co.uk/seattle.html>>
- Robins, K. and Webster, F. (1985) 'New technology and the critique of political economy', in L. Levidow and R.M. Young, eds, *Science, Technology and the Labour Process: Marxist Studies*, vol.2, pp.9-48, London: Free Association Books.
- Robins, K. and Webster, F. (1999) *Times of the Technoculture: From the Information Society to the Virtual Life*. London: Routledge.
- Rose, N. (1999) *Powers of Freedom: Reframing Political Thought*. London: CUP.
- Rosenfeld, A. (2000) 'The internet learning dream', *LSE Magazine*, Winter: 4-5.
- Slaughter, S. and Leslie, L.L (1997) *Academic Capitalism: Politics, Policies and the Entrepreneurial University*. Baltimore, MD: Johns Hopkins University Press.
- Smith, A. and Webster, F., eds (1997) *The Postmodern University? Contested Visions of Higher Education in Society*. Buckingham: Open University Press.
- Veblen, T. (1918) *Higher Learning in America: A Memorandum on the Conduct of Universities by Business Men*. New York: Hill and Wang.
- Willmott, H. (1995) 'Managing the academics: commodification and control in the development of university education in the UK', *Human Relations* 48(9): 993-1027.
- Winner, L. (1998) 'Report from the Digital Diploma Mills Conference', *Science as Culture* 7(3): 369-77, text available at <http://www.oreilly.com/~stevet/netfuture/>, conference details available at <<http://thecity.sfsu.edu/~eisman/digital.diplomas.html>>
- WDM (1999) <<http://www.wdm.org.uk/cambriefs/WTO/GATS.htm>>