Distributive justice and information communication technologies in higher education in South Africa

I Broekman, P Enslin & S Pendlebury
University of Witwatersrand

ABSTRACT

The international communications network is both a feature of globalization and a condition of possibility for the process of globalization. Universities are willy nilly part of the process. This poses a range of dilemmas for universities in Africa. In this article we focus on some dilemmas of distributive justice as indicated in the question: Should South African universities introduce or develop on line learning for flexible mode delivery under circumstances in which some students do not have access to Information Communication Technologies (ICTs)? Walzer’s account of distributive justice provides an illuminating set of concepts for understanding the issues embedded in this dilemma. The concepts of simple and complex equality, and the related concepts of dominance and monopoly, social goods and the criteria for their distribution are especially pertinent. They are deployed to develop some tentative recommendations on how South African universities should approach dilemmas of distributive justice in the use of ICTs.

ALL ROADS LEAD TO ICT?

The computer and its connectivity to the Internet is seen to do many wonderful things. In education it is seen by some as the only way to go, if not as a substitute for conventional teaching and learning resources, then at least as a highly customisable adjunct limited only by technological possibilities. For Ian Gordon Cumming, general manager British Telecoms (BT) Southern Africa: “The advent of the Internet has rewritten the rules. Internet based learning offers the best of all worlds… Video? The Internet can carry it. Audio? The same. Text, and rich graphic images? No problem. Interactive testing and review mechanisms, together with a let’s go back and look at that again loop? Again, no problem. (Quoted in The Star, Friday 13 October 2000).

In an even more extreme bid for online learning, Ian Kennedy from our own university challenges us to think about using digital media exclusively for teaching, learning and assessment. Putatively, his argument is a response to the need to move from elite education to mass education and rests on the claim that “the only way of us attaining mass education is through digital media” (Kennedy 2001:2). What is it that is supposed to make digital media especially suited to the daunting task of providing mass education at tertiary level? Kennedy speaks of such uses as updating material, referencing using the web, providing subsidiary material, the possibility of reviewing material; of such features as colour, indexes and fonts; and finally of the importance of digital media for realising the vision for our university to be the global centre of excellence in the future delivery of world wide education. In his list of benefits, only the digital aspects stand out as unique being able to digitally bookmark, and the use of search engines to find material … and so on. The ease with which digital media permit these is a significant advantage, as well as the promise of reaching more students, including students at a distance.

Kennedy’s argument appears to rest on two questionable assumptions. The first is that access to digital media is unproblematic: “Our next generation of students and our distance education students will all have computers at home and will require digital media” (Kennedy 2001:1). This assumption ignores the possibility that in South Africa there may be other priorities than the technological (although how the technology itself will develop from here may surprise us as did the dramatic rollout of cellphones). The second questionable assumption is that learning is primarily a matter of the transfer of information from expert to learner. For some courses this may be the case, but in courses that aim to develop critical thinking and reflective practice much more has to happen. Here learning entails the development not only of conceptual tools, but the ability to use them in...
argument, discussion, research and practice. In the School of Education at our university, we aim to develop in our students the ability to reflect on what they do; we have to assist them to work contingently, to manage educational relationships, to interact with both policy and pupils. From our perspective, being able to bookmark ideas, or to thread e chats is a minute part of the pedagogical picture.

Kennedy tends to gliss here. (A word about words: “gliss”, coined for this article, is part gloss and part glissando, a somewhat slippery and yet seductive move):

We evaluate and digitally bookmark the page so that we can later return to it, to categorize bookmarks into digital folders ..., annotate, sequence and organise by dragging and dropping the bookmarks and folders into the most logical positions. We click on the Discovery search by example button to programmatically extract the key works in the key page and we use the search engine again with these key words. This finds preliminary answers to some of our implicit research agendas .... Repeating, we find a relevant thesis in a forgotten subdirectory, where other related files await us to revisit, bookmark, annotate and organise them. We analyse, evaluate and draw conclusions then synthesize a draft, which we submit to the spelling and grammar checker to clean up .... (Kennedy 2001:5).

Notice the point of gliss: from a detailed listing of electronic clicking, dragging, searching and finding to a single phrase string of human cognitive activities analysing, evaluating, concluding and synthesising. Precisely here the tough educational challenge arises: How does one teach students to analyse, evaluate and draw conclusions? This concern, surely one of the most crucial in higher education, is not properly addressed in many of the more enthusiastic arguments for educational virtues of digital media.

In raising this concern, we are not advocating a Luddite revival; nor are we ignoring the ubiquity of ICTs, which we take to be both a feature of globalisation and a condition of its possibility. While we accept that universities as primary producers of knowledge are willy nilly part of the process of globalisation, we recognise that this poses economic and moral dilemmas for universities in Africa with student populations from diverse educational backgrounds, geographic locations, material resources and technological capacities.

In this article we consider dilemmas of justice embedded in the question: Should South African universities introduce web based courses for flexible mode delivery under circumstances where some students are unlikely to have ready access to ICTs?

Assuming that many students will not have physical access in their place of residence or work, is it morally defensible to introduce on line learning if doing so would disadvantage an already disadvantaged group of students? On the other hand, if we choose not to introduce web based courses on these grounds, are we not then denying those who do have physical access the various educational benefits promised by ICTs, from the enthusiasm and innovative approaches to teaching that they may generate, to access to global communities? In either case, we would be guilty of exclusion.

Universities worldwide are under pressure to offer online courses. South African universities are under particular pressure as they compete for students in the face of declining enrolments. The compulsion to go online is compounded by the globalisation of education, as foreign institutions compete for both residential and potential online registrations. As a result, South African universities themselves face the dilemma of whether to rush to online programmes for fear of excluding ourselves from the global educational market or to risk the slower and more considered route required to ensure justice and quality for our students.

Deciding to go online is motivated partly by the wish to tap the educational potential of a new medium. Without doubt, ICTs can complement traditional face to face as well as distance education, creating additional opportunities for lifelong learning, reducing “distance” by reaching remote areas, providing easier access to global communities. Going online is also motivated, as we have said, by a fear of the consequences of staying offline. Yet while some predict that those institutions that decide not to “join the online revolution will go the way of the dodo” (quoted in Carnevale 2001:5), some US institutions have decided not to offer a significant number of their courses online. Most are liberal arts institutions whose ethos emphasises that students are members of a “residential learning community”. Other reasons for not plugging in are a shortage of funds and resources, and a strategy of zero growth prompted by already high enrolments. South African universities may have additional reasons not to jump online (for example see Lelliott, Pendlebury & Enslin 2000).

ACCESS

While there are many issues at stake in extending the use of ICTs in universities, in this article we focus mainly on student development. ICTs could enhance student development by complementing and enriching courses and, ideally, by preparing students for the new world of work, for global communications and for lifelong learning. The possibility for anyone to use the Internet, to find and contribute resources and information, promises to distribute power and so give
students control over their own learning. Networking replaces hierarchies and so promises to give voice to the usually silent. For reasons such as these, not exposing students to ICTs could marginalise them from global communities of practice and so exclude them from some of the enabling conditions for flourishing in the contemporary world.

But many of our distance students have no ready physical access to new technologies. Take the case of Precious Mahlangu (not her real name), a temporary teacher at a secondary school, who lives with her daughter in a shack in an informal settlement on the East Rand. Her shack, which she built herself (a choice she made to save money for her and her daughter’s education) has one room, and no electricity, running water, or landline telephone connection. Although there is a telecentre reasonably close to her home, it is too dangerous to travel to it after hours. She is currently registered for an honours degree in education (BEd), delivered in flexible learning mode (“flexi”). This means that she attends classes in four one week blocks distributed through the year, and studies independently with the help of course materials and carefully structured assignments and activities, supported by tutors who can be contacted by mail or telephone. While many of Precious’s fellow students live in similar conditions to hers, some are worse off because of their isolation in remote rural areas. Others are considerably better off, with a rich array of material possessions as well as the cultural capital that gives relatively easy access to the university and its educational goods. At the extreme is the principal of an elite private school, fully armed with computers, Internet connections, and savoir faire.

To get a sense of how typical Precious’s position is amongst flexible learning students in Education at Wits, we surveyed two cohorts of the honours level flexi BEd students, asking the following questions:

Do you have any access to a computer that you can use in your studies? If you answered YES, indicate where the computer is situated: (eg home, school, friend, work).

Does this computer have e mail (Y/N), have access to the Internet (Y/N)?

Would you favour having computer based learning, including having e mail and the Internet integrated into the course? Give reasons for your answer.

These questions were put to both first and second year flexi BEd students in 2000. Of the 34 who answered this question in second year, 26 said they had no access to computers, 8 said they had access. Of the 50 first years who completed the questionnaire, 28 said they had no access to computers, while 22 said they did have access. At best, less than half the students in both groups had access. Yet almost all respondents favoured having computer based learning, using e mail and the Internet, included in their course.

A lack of telephony and electricity infrastructure in the country is only part of the problem of access. Even when the infrastructure is available, the affordability of computers and the costs of connectivity are serious obstacles. Some schools who have Internet connections have had their telephones cut off because the bills are not paid (cf SAIDE 2000). But even where students do have physical access, and a financially sustainable connection, and anticipate that computers will make their lives easier, they discover yet more obstacles to overcome. Computer use in education is not a simple issue of connectivity and exposing educators to its possibilities. Even students who have material access to the required technology may nevertheless not have epistemological access (cf Morrow 1993/4). A certain level of computer literacy, confidence and informed judgement is required for students to work online. The more confident users can explore and take risks, but the less confident would need support, both technical and pedagogical. This is succinctly put by one of the BEd students who answered “Yes” to having access to the Internet, but added “but we do not have access of operating ... the Internet ... we need assistance”.

Theories of the social construction of knowledge imply that the relationship between the social and the personal is central to epistemological access. Knowledge is constructed and develops in and through social mediation (cf Vygotsky 1987). Enabling epistemological access to ICTs in higher education thus requires us to consider the developmental aspects of an affinity with technology, and to understand that such an affinity depends on confidence which itself develops through social mediation (Broekmann 1992). People with expertise in technology often seem to forget the processes by which they gained expertise, and the context within which it was gained. The level of technological ability in a society is likely to enhance the capacity of the individual, and vice versa. Trying to use technology when it is unfamiliar may be simply frightening. To complicate matters, it also demands access by way of such manual skills as typing.

Concerns about access - both physical and epistemological - raise dilemmas of distributive justice, which have a particular significance given South Africa’s history of discrimination in the distribution of educational goods. We deploy Walzer’s theory of justice to explore these issues. We begin with an overview of Walzer’s theory and some illustrative examples for education; we then explore the extent to which and ways in which the theory might be used to illuminate the dilemmas indicated in the introduction.
SOCIAL GOODS, DISTRIBUTIVE JUSTICE AND HIGHER EDUCATION

An understanding of Walzer’s theory of distributive justice best begins with his characterisation of equality. This is because just distributions are necessarily tied to some or other notion of equality. For Walzer, equality “is a complex relation of persons, mediated by the goods we make, share, and divide among ourselves: it is not an identity of possessions” (Walzer 1983:18). This characterisation paves the way for his critical distinction between simple and complex equality.

On a conception of simple equality, everyone must have the same share of social goods, like wealth, power and education. Simple equality operates on the principle of equal treatment for all and assumes that equal means the same. For example, a university that decides to offer a course electronically would be obliged, on the principle of simple equality, to ensure the same access for all students. Such access could involve supplying computers to those students who do not have them. Should the university not be able to ensure such access, the principle of simple equality requires that courses not be offered with that medium.

One possible interpretation of simple equality would require not only equal access, but also equal processes and even equal outcomes.

By contrast, complex equality assumes that there are separate, autonomous spheres of justice and that each has its own appropriate principles of distribution. Walzer advances the theory of complex equality in order to address two related and ubiquitous social problems: dominance and monopoly. Dominance is a state of affairs in which those who hold one good (for example, money) are able to convert it into another good (for example, housing, status, or education). Dominance prevails when a group of people acquires a monopoly over a dominant good. Some people are able to monopolise social goods in order to benefit from their dominance by commanding other goods. According to Walzer, complex equality reduces dominance by restricting the convertibility of goods from one sphere to another. In other words, ideally complex equality is a set of relationships under which domination is not possible. Under conditions of social injustice, a monopoly over goods and commodities can enable some to purchase computers and the educational advantages they can provide, such as easy access to information and communication and to online learning. South African universities committed to redress have a particular obligation to reduce dominance by addressing ICTs’ potential to increase the divide between those who do and do not have access to the technologies and the means to purchase and use them.

For present purposes, two further, closely related concepts from Walzer need explication: social goods and distributive principles of justice. David Miller provides a useful summary:

Each community creates its own social goods and their significance depends on the way they are conceived by the members of that particular society. The roster of such goods will differ from place to place. In Spheres Walzer sees the following as the main categories of goods in contemporary liberal societies: security and welfare, money and commodities, office ... hard work, free time, education, kinship and love, divine grace, recognition ... political power. (Miller 1995:4).

Walzer claims, controversially (Miller 1995:5), that the criterion of just distribution of each social good is determined by the meaning of that social good. Knowing what we have to allocate, for Walzer, enables us to know how to allocate it, and to whom. The distributive criterion for medical care is need, while for commodities and money it is the free market. When it comes to education, Walzer’s criteria are equality at the basic level and the capacity and interest to benefit at higher levels of education. Disagreement about the criteria for distributing social goods reflects disagreement about our understanding of the social good itself; we can resolve such disagreement by settling the issue of the meaning of the social goods. In the South African case, we do not have equality at the basic level, and hence the capacity to benefit at higher levels is also unequal. Money and other social goods are unevenly distributed and education is very far indeed from an autonomous sphere of social justice.

But Walzer’s faith in the possibility of resolving disagreements about the meaning of a social good may be misplaced. The “shared understanding” of the members of a society about the meaning of goods, including education, is likely to reflect the dominant elites’ interpretation of those goods (Barry 2001:196) as well as the elites’ interests in enforcing that interpretation. Walzer’s theory of justice predates the present extent of globalization and the central role of ICTs in it, and he does not include technology among the social goods and hence the spheres of justice. If for argument’s sake we take ICTs as a social good rather than a commodity, the likelihood of developing a shared understanding (among those who use and are affected by ICTs) of the meaning and hence criteria for their distribution is less than in the case of other social goods. This is so because of the sheer pace of change in the capacities and uses of ICTs. And the hypothetical argument applies as much to those who have access to ICTs as to those who do not. ICTs cut across the spheres delineated by Walzer in the early eighties. We have a hunch that Mulgan’s (1998) notion of an “infosphere” has clues for understanding a new kind of sphere of justice,
A question for this article is how students in higher education see ICTs as a commodity, regardless of the social location of these students. A related question is whether they assess the significance of ICTs primarily in relation to educational goods, or as commodities with a high exchange value.

We invited the 32 MEd students in Policy and Management in Education to write a paragraph on the social meaning of computers for this research. The surveys we conducted with our BEd flexible learning cohorts and with the MEd Policy and Management group suggest that ICTs carry considerable weight as commodities. Although less than half of the BEd students surveyed had access to ICTs, with few exceptions they favoured the inclusion of computer based learning and e mail and Internet use in their course. More significantly, their reasons for favouring online learning reveal how they perceive ICT as a commodity and in relation to social goods. A content analysis of the MEd students’ paragraphs showed their optimism about the promises held out by ICTs. They write that they desire technological skills that enable them to meet many needs, such as enhancing learning, storing data, referencing, writing, typing, getting and sending information. They see ICTs as saving time, for example by making speedy transactions, making the world smaller and more accessible, and enhancing economic and social development. The mind is broadened, life is easier, and relationships between different cultures are improved. Students perceive ICTs to offer the ability to communicate with ease across distances, easier access to information, ease of storing and processing text, and the technological skills themselves in what they see as a global, technological society skills which for them are crucial for the acquisition not only of educational goods but other social goods such as work.

Despite these sweeping and optimistic claims, which may be a chimera, there is another darker side to the “infosphere” (Mulgan 1998). The students’ utterances show that they are aware that the benefits of ICTs are out of reach of those who cannot afford them. Some extracts from the responses of two different MEd students illustrate the point:

Computers mean interacting with the environment and life through an instrument that provides one with technological assistance. However this would mean that people of a certain class will have access to this mode of interacting with life and not the others. Accessibility to computers is determined by the individual’s social background.

Computers are important in our daily lives for we are now in a highly technological era. With computers we can access a lot of information without having travelled long distances. However not all could afford computers so it becomes a little difficult.

Walzer’s comments on money and commodities as social goods explain just how far reaching the consequences of this unaffordability can be. For Walzer, commodities goods that money can buy “are above all commodious; they are a source of comfort, wealth and security. Things are our anchor in the world” (1983:104). What sort of an anchor in the world is a computer? Although Walzer points out that we all need anchors but we don’t all need the same things to anchor us, people without significant commodities that anchor others may find themselves adrift. Computers are powerful global commodities and anchor across cultures, transcending Walzer’s observation that different cultures may have varying characteristic commodities. In another way, the computer also unanchors us from time and space, and this may have important implications for the conditions under which epistemological access can be achieved. Putting students on line may well leave them adrift.

A standard way of sorting out commodities is by market exchange. Money, Walzer observes, buys membership in industrial society (1983:105). If we haven’t got money we suffer a loss more serious than poverty itself, becoming aliens in our own homelands and often also in our own homes. Commodities mediate membership itself. It seems that the promise of ICTs is that going online ensures membership of an international community. As distributors of access to ICT and as agents of redress, South African universities thus become mediators of membership and belonging to local and global communities.

RESOLVING DILEMMAS – FOR NOW

Walzer’s theory can be used to illuminate the driving question of our article. The assumption that simple equality is the right interpretation of justice has a strong presence in public debate in South Africa. Anti elitism reflects deep suspicions of any action that might provide some individuals or institutions with advantages that others do not have. Simple equality would require that all students have access to the same goods. Simple equality would dictate that if only some students are able to buy the advantages of online learning, the dominance already present may be compounded, leading possibly to the conclusion that ICTs should not be used at all in universities as they are unlikely to be able to provide access to them for all their students.

How can Walzer’s notion of complex equality help us to address our dilemma? It helps us reflect on the role of universities in addressing dominance in a context
of both redress and a commitment to quality education. Complex equality aims to counter dominance by reducing the ability to purchase across spheres. It is this principle that we wish to invoke for higher education. Walzer claims that equality is the distributive criterion for education at a basic level, whereas interest and capacity are the criteria for post basic education. In South Africa, basic education has not been equal, so students do not have the same capacities on entry to higher education, though we can assume their interest. Returning to our original dilemma, others do have access to develop and use these technologies in their practice. Most of our students want ICTs, though their social meaning as a good is far from settled, both in the society as a whole and in the sphere of education. While, hence, the distributive criteria for ICTs are unclear, universities cannot wait for this issue to be resolved and ought to play a role in debating it.

In the light of the above we can nevertheless make some tentative recommendations. For justice in the use of ICTs, we need to provide our students with the means to acquire membership of global intellectual communities. For South African universities this creates an obligation to allocate sufficient funds to provide full access to ICTs to those without the resources to buy such access themselves, and also to develop the capacity to use them. This could mean that students who are capable of complementing their studies online would have the freedom to do so, and courses could be structured to invite students to do so, while others would be provided with a richer, thicker academic milieu in which to develop the capacities required in higher education (Broekmann & Pendlebury, forthcoming).

Interest and capacity may be linked to the notion of equal citizenship or membership within the University and the global intellectual community. We do not wish to discriminate against students with less capacity nor those with more capacity to benefit or not to benefit from ICTs in the higher education sector. South African universities take seriously a conception of justice that offers equal quality of experience. What this seems to require is a differentiated treatment appropriate to students’ current capacity. The alternatives are to perpetuate dominance by teaching and using ICTs in such a way that many students cannot benefit, or not to use ICTs at all, so that none benefit.

Without compromise to their equal citizenship in the academic community, students could be offered differentiated learning paths by allowing them to choose their learning path in online education according to their perceptions of their capacity and interest in the use of technology (guided, for example, by a skills questionnaire) and of where they believe that they would benefit optimally.

Genuine exercise of such choices, as we have argued earlier, requires epistemological access, which includes the capacity to work independently, conceptually and critically. Many South African students would struggle to learn independently online. What we propose is that universities offer more mediation, and even more direct contact with the students with less initial capacity in ICTs in education, and permit those with more starting capacity to study from a distance. Courses would be more complex, with complex modes of delivery, integrating different aspects of online learning into both the courseware and assessment, without sacrificing the conceptual demands about critical thinking, problem solving and reflective practice. Global access can be offered by recognising communication tools as a beginning point that permit students to associate with other educators, and become part of a broader community. Joining this virtual community is more likely to be achieved by recognising the need to provide mediated access at the university than hoping that students can get access at or near home. The promises of ICTs for the likes of Precious Mahlangu then become less of a chimera, though the problems of transport rather than telecommunications may still persist.

As South Africans we are reluctant to do anything in a differentiated way because we are haunted by a past of injustice based upon vicious and discriminatory differentiation and are rightly anxious about perpetuating injustice through new practices and policies. Yet being ethical and courageous on the issues discussed in this article seem to require rather than prohibit differentiation.

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