Students' access to digital literacy at a South African university: Privilege and marginalisation

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Abstract: Lifelong learning has become associated with participation in the digital age, affecting everything from access to information technology, to its use in teaching and learning. It is therefore inevitable that educationists turn to digital literacy practices to examine their contribution to, and influence on, learning. This article explores the digital literacy practices of a group of higher education students with minimal previous access to digital resources, as well as how they compensate for uneven access, with a view to examining what they perceive to be challenges and possibilities offered by technology. Thus the article highlights how they are 'caught-between' two worlds: the technologicised and non-technologicised. The work is framed by New Literacy Studies, which suggests that literacy is a contextualised practice positioned in relation to social institutions and the power relations that sustain them (Gee, 1996). Emerging themes indicate that students perceive digital practices to have symbolic value, and provide access to cultural capital.

Introduction

Literacy has long been a central concern of educationists, as a means of socialisation, and as an end in itself. Subsequently literacy has become a lens through which educational practice has been more critically examined (Goodfellow, 2004). Lifelong learning has become associated with participation in the digital age, affecting everything from access to information technology, to its use in teaching and learning. It is therefore inevitable that educationists turn to these practices to examine their contribution to, and influence on, how learners know and do things. Digital literacy, while formerly associated with urban centres, has been widely argued to have the potential to break down the divide not only between adult and young learners, but also between rural and urban communities, precisely because the use of resources offered through the Internet in particular need not be restricted to any particular physical location.

   Currently, in South Africa, an advantaged elite minority have multiple access routes to digital literacy in their socio-cultural environments. A less privileged majority still come from under-resourced socio-cultural backgrounds where digital technology is rare, and access unevenly distributed. Researchers (for example, De Lange *et al*., 2008) are now exploring the possibilities of digital resources for learning in remote rural areas. It is this concern with learners who are not located in accessible, resourced, mostly urban schools, and who access university for the first time, often as first time users of computers, the Internet and e-mail, that provides the focus of this article. As South African higher education institutions enter the second decade of transition and transformation, new opportunities and challenges arise; for example: open learning, lifelong learning, commercialisation, internationalisation, globalisation and quality assurance regulations (South Africa, 1994, 1996). Digital technologies have already become a feature of learning in higher education, but many entrants to higher education still struggle with other literacy skills such as reading, listening and writing (refer, for example, to Boughey, 1997, 2002; Balfour, 2002). Furthermore, with access to digital literacy still associated with the middle class, higher education's mandate to provide access to learning to students from a variety of class, race, gender and age-groups, is consequently constrained.

The African and South African digital technology landscapes: Inclusion, connectivity, and access

Arguments cautioning against the use of digital technology in Africa tend to foreground concerns such as war, famine, poverty, and lack of basic education. However, it is also recognised by scholars (see Abadzi, 2006; Kleifgen & Bond, 2009) that technology can promote democracy through open access, literacy skills through e-mail and the Internet, and access to education.

At present, South Africa is considered one of the technologically advanced countries in Africa. The country was rated as having the highest number of domains and websites of the Southern African Development Communities (SADC).[1] However, although South Africa is considered a prominent player in the field of technology in the SADC region, the country is a relatively minor player globally, hence research into digital literacy practices is valuable given South Africa's context as a developing country. Furthermore, the representation of South Africa as relatively advanced in terms of its exposure to Internet use, and facilities, has to be contextualised by the fact that basic literacy and numeracy skills of its population are lower than those of many of its SADC neighbours (Aitchison & Rule, 2005).

Shortages in e-skills development are also predominant in the country, according to findings from a study conducted by Merkofer and Murphy (2009). The researchers argue that key stakeholders, that is, government, industry and educators need to collaborate to address the e-skills shortage in South Africa and transform the country into an ICT 'powerhouse' (Merkofer & Murphy, 2009: 686). What is problematic in South Africa is the lack of infrastructure to build e-skills at educational and community level. The country is also characterised by disparities such as a wealthy, educated minority who have access to technology and a disadvantaged majority, which results in a growing digital divide. Such disparities arise from gaps such as under-resourced schools and the gap between higher education and the workplace. Included among Merkofer and Murphy's (2009) findings is that higher education does not prepare students sufficiently for the workplace in terms of e-skills.

The aim of the study on digital literacy practices in higher education

It is against an African, and more specifically, a South African backdrop, that this article examines the digital literacy practices of a selection of undergraduate students in an English classroom at a university in Johannesburg, South Africa. These students have had minimal previous exposure to digital technology, and feel marginalised by their lack of technological exposure. In particular, the article seeks clarity on their digital literacy practices: What are the in- and out-of-school digital literacy practices of the group of undergraduate students from under-resourced backgrounds, and how do they compensate for uneven access to technology? Specifically, we explore and seek to understand the challenges and possibilities that these practices provide.

New Literacy Studies: A theoretical lens for literacy as social practice

This article draws on New Literacy Studies (NLS) to provide a conceptual framework. Gee (1996) and Street (2003, 2004) suggest that literacy is not only a skill, but a contextualised practice, thus NLS refers to language and literacy as social practices, as well as skills to be learnt in formal education. In his reference to the 'new order', Street (2004: 10) argues that new orders require new ways of thinking about literacy, particularly in the case of the arrival of non-traditional students in higher education. As individuals acquire literacy, their world views expand (Edwards & Corson, 1997). Economic and political institutions also change with the spread of literacy. Therefore the acquisition of literacy has implications for individuals and societies, and the changes brought about by literacy leads to a new world order.

Lillis (2001), for example, in her work on student writing, argues that higher education institutions privilege writing, in particular 'essayist' literacy (Lillis, 2001: 20) as a transparent and transferable skill which places non-traditional students new to the university at a disadvantage. NLS requires that language and literacy be studied as they occur naturally in social life, taking into account context and their different meanings to different cultural groups. Thus Gee (1996) argues that the traditional view of literacy as the ability to read and write takes literacy out of its socio-cultural

contexts, treating it as an asocial cognitive skill that has little or nothing to do with human relationships. However, in reality, these literacies construct and situate identity within a range of discourses, many of which are embedded within socio-economic and cultural contexts. Drawing from Gee's (1996) notion of Discourses (as ways of being), Street's (1984) linking of literacy to ideology, and Bourdieu's (1991) notion of cultural capital, we argue that participation in Discourses are to some extent constrained by the extent to which practitioners within them can access the forms of cultural capital critical for their emancipation and mobility in society (Barton et al., 2000).

In adopting a framework of literacy as social practice, literacies are positioned in relation to the social institutions and power relations that sustain them, education being one such institution (Gee, 1996). Thus the teaching of one type of literacy could privilege certain groups, while disempowering others who have not had access to that dominant literacy. Consequently, not exposing learners to a dominant literacy serves to exclude them from society at large. We argue that learners' out-of-classroom literacy practices have important implications for inside the classroom. This argument coincides with Gee's (1996) understanding that home is the primary domain, and school, secondary, thus what learners bring from the home is valuable, though often marginalised in the school environment, and vice versa.

To encapsulate, Barton and Hamilton (2000) provide the following propositions as a framework for the nature of literacy: that literacy is a social practice, and that different literacies are associated with different domains of life. Literacy practices are patterned by social institutions and power relationships, and some literacies are more dominant, visible and influential than others. Literacy practices are also purposeful and embedded in broader social goals and practices, literacy is historically situated, and literacy practices change and new ones are frequently acquired through informal and formal learning and sense making.

New Literacies are associated with the changes that are intrinsic to life. With the introduction of technology and electronic media to teaching and learning (technological literacies, as referred to by Knobel & Lankshear, 2002), different layers of change and practices have emerged. Reading and writing electronically, for instance, require new practices, such as using hyperlinks to access information, the use of icons in e-mails and chat rooms (such as smileys ☺) to show social presence, and being able to read different elements of web pages, such as icons and drop down menus. Technological literacies have therefore altered how we understand learning, knowing and doing (Knobel & Lankshear, 2002), and much of the cyber lives of young people is text-based, through the use of the language of e-mail, sms, chat, and discussion boards. Language in these forms assumes a new hybridised register that is positioned at the interface of speech and writing and with its use of abbreviations and signs becomes conversational in nature. An exploration of the nature of such textual interactions is therefore essential to understanding how they construct meaning using multiple modalities. By understanding, we argue that it is possible to better facilitate learning in the formalised sense. In this article we examine students' digital literacy practices at home and their secondary schools, in relation to the digital literacy practices to which they are exposed in the university English classroom that is described later in this article.

A study of digital literacy in higher education

Academic literacy courses at a university in Gauteng: A digital intervention
The enquiry described here was conducted in two academic literacy classes over two semesters. Both were of fourteen weeks duration. Academic Writing (Semester 1) focused on language issues within a socio-cultural context. The second semester module was Language and Research, where students worked in groups to conduct and analyse research and compile research reports over a fourteen week period, which they presented in written and oral form. Traditionally the courses are presented face-to-face, however, for this project, it was decided to add a digital intervention in the form of an online class, designed to run parallel to the face-to-face class in order to engage students more actively in writing tasks, as well as to provide more contact during the courses.

Setting up the course was not arduous because the university possesses web course management software which is designed to create and manage online courses. Web courses can be

conducted as stand-alone courses or may run parallel to traditional face-to-face courses as an extension or support effort. We chose the latter option. *Nicenet* proved to be a suitable system to use with students as it had a fast download time in South Africa, and the system allowed all participants to view a list of class members, to access notes and other related links, and to engage in discussion threads. Weekly discussion questions based on class readings were posted on the discussion board, initially by the researcher, and later by learner-participants as well, in order to enhance class discussions. Guidelines were also posted to scaffold assessment tasks and a link created to connect students to international student e-pals (online penpals) to encourage interaction and writing practice.

The participant sample
Twenty students in a class of 37 volunteered to be part of the study, although all 37 participated to varying degrees in both the face-to-face and online components. Sixteen of the participants were from various regions in South Africa, while two came from SADC regions, one from China, and one from Iran. Pseudonyms are used for all participants to maintain their privacy.

A methodology for understanding digital literacy practices
Using a multi-method approach to collect the data, and to ensure triangulation, six instruments were employed in this study. Participants' digital literacy histories (collected at the beginning of the semester), semi-structured interviews (recorded and coded at the end of the semester), observations by the researcher of students' work in the computer centre (ongoing throughout the semester), access and proficiency surveys (also during the semester), and finally a researcher's diary of reflections on the progress of the project elicited the data set. A selection of postings (obtained with the formal consent of students) elicited from the online class was also referred to.

Data description and analysis

Participant access to computers, e-mail and Internet
In this project, participants had access to one teaching laboratory which consisted of forty workstations, a stand-alone server, and one heavy-duty printer. This space was contested in that access to it was sometimes divided between two teaching groups. Abadzi (2006) argues that the context for learning and participation is constituted of material and psychosocial resources, which together either serve to advance or limit participant's access to resources and affect not only the pace of learning, but also what is learnt. In the paragraphs to follow we focus primarily on the interview data since this is most revealing of participants' perceptions of digital literacy practices. We have grouped this data to support themes appearing to emerge from participants' responses: in-school practices (specifically high school), out-of-school practices, university practices, compensating for uneven access, perceptions of privilege and marginalisation, and finally we reflect on their use of digital technology within the context of a digital divide.

Differential and differentiated access: The in-school digital literacy practices
The focus of much of the discussion with students about their in-school digital literacy practices concerned their use of computers. Of the 20 participants, the majority did not have digital access at school or at home. Of the South African participants, 15 (75%) said they did not have access to digital technology at school, with only one stating that he had previous access (the remaining four were SADC/ international students). The student (Lucky) who had access at school had this to say:

> *(We had) just a lab but it was not easy, I was stealing time to go there, but here at the varsity to be told how to use the Internet, it's not really big work. Some students don't do this. Ja, others type their assignments (for them).[2] It's just the fear. People are just afraid. There's nothing to be afraid of.*

Lucky was fortunate that his school had a computer laboratory, but he acknowledged the bureaucratic difficulties in getting access to use the computers. His use of the words 'stealing time' to use

the computers shows that this was not always an easy task, that time to use computers was not provided for, or that it was not always permitted. This relates to Warschauer's (2003) findings on the model laboratories set up in Egypt, where equipment was not installed, or used, because of bureaucracy and gate-keeping. Lucky's reference to 'fear', or technophobia, was a common perception of 60% of the participants and is indicative of how they felt positioned by the technology. In her digital literacy history, Mbali wrote about her very early fascination with the electronic, in this case, her family's first television set. She recalled:

> My family got the first TV. It was so joyous. We used a car battery to charge the TV. Then we will sit around, laugh, watch. Even the neighbours, they came to visit when it was time for TV. It was regular. Sometimes the battery will fail, and we can do nothing … we would wait for my father to charge (it), then we can watch again. But sometimes even the neighbours get jealous for this – we had the TV.

Technology, community, and status through access are evident here. Similar experiences were noted when participants described their first experiences of cell phones as a means of creating avenues for wider communication and socialisation. Research reveals that students transfer cell-phone skills to thread postings, for instance by using abbreviations and symbols to reduce the time needed to write messages, or as a substitute for non-verbal cues (Murray, 2000). It could be said that they write as they speak. Mbali described also the fetishisation of technology: how her aunt's computer was covered to keep the dust off, and was seen by the children to be an expensive ornament. In her digital literacy history, Mbali wrote: 'There is always this fear if you touch it something will happen'. Thus Warschauer (2002a, 2002b, 2003) cautions against the determinist view that suggests that the mere presence of technology will bring about social change.

Participants who did not have computer access at school expressed some of the problems they experienced upon entering university and had to compete on equal terms with students who had previous access to technology. Sibonela said: 'No computers in school, only the teachers had access. In the office – only one computer for all. The area I come from, Limpopo is one of the poorest. A computer is a luxury, you only get to see it'. Adam's comment was: 'Ja, the principal had it, but if he could use it? (*Shrugs, raising shoulders.*)'.

When asked about their reactions to the use of digital technologies when they got to university, all participants agreed that it was a difficult transition to make. Lindiwe, for instance, said that it was very difficult, and that she even had to learn how to use a mouse through trial and error.

It is evident from these responses that most participants came from under-resourced contexts, in some cases only principals, and sometimes teachers at schools had access to digital technology such as computers. Adam's doubts about whether the principal was computer literate is also typical of what Warschauer (2002a, 2002b, 2003) has described in studies conducted in other under-resourced contexts such as Egypt, Ireland and later India, where technology was purchased (in Ireland's case, won) at great expense, but not efficiently or effectively used, partly because of bureaucracy, and because people were not sufficiently trained in its use.

A common thread that emerges is that participants were encouraged by teachers to use computers in preparation for university, even though they did not have access at school. Another thread is the dissatisfaction felt when participants arrived at university (refer for instance to Merkofer & Murphy's (2009) study discussed earlier), but felt excluded from one of the dominant academic practices of the institution, that is, technological proficiency. This had been recognised by the participants' high school teachers who encouraged the use of technology because of its global impact. The participants often spoke about how their teachers would encourage them to use computers as much as they could because technological skills would ensure that they progressed in life.

Of the SADC/ international participants (four out of 20) forming part of the sample, three had digital access at school, while one did not. Xing, for instance, spoke about his high school in Shanghai where they had computer lessons, and he also kept in contact with his family via e-mail. He also spoke about being able to log on to the Internet in Shanghai using an access card not unlike a phone card. He was motivated to use e-mail to maintain contact with family and friends in Shanghai, like the other international and SADC students.

Oscar, from Zimbabwe, did not have previous access to computers or the Internet at school. However, as a mature student, who was also a practising textile artist, he had been exposed to technology through his work when he started travelling to and from Europe in order to exhibit his textile paintings.

Of all the participants, Oscar appeared to be more motivated than his classmates because of a need to sustain contact for his work, and therefore for financial gain. Oscar also made an interesting technological transition during the course of the year. At the beginning of the year he was seldom without his *mbira*, or traditional African thumb piano, but halfway through the first semester the *mbira* was replaced with a digital camera, and later with a laptop on which his research group would work on their research project. At the time of this study laptops were rarely used in class, and therefore a novelty among undergraduate students from under-resourced backgrounds. The shift from *mbira* to laptop shows an interesting technological trajectory over the course of the year. In an early conversation he claimed that he was not a 'computer genius' at the time he started his travels, implying that he considered himself to have become very proficient during the course of the research project. Oscar therefore had a stronger investment in technology because of his work.

Out-of-school digital-literacy practices
Many of the project participants (see Mbali mentioned earlier) argued that technology education is not as urgent a need as health care and poverty alleviation in Africa (see also Lelliot *et al*., 2000). Of the South African participants, only one participant had access to a computer at home, while 15 did not. Only one participant (Adam) admitted to accessing Internet cafes. Others said that the only access possible was at university. The South African participants were all University Financial Aid recipients from disadvantaged backgrounds. Thus unsurprisingly basic needs took priority over the purchase of computers.

All four SADC/ international participants had access to digital technology in the home. Natalie, who had access at her home in Maputo, also acquired a computer in South Africa at the time of the study, while Xing and Farzana also had computers at home. Participant access to digital technology prior to coming to the university was therefore limited to an experience of marginalisation between students without prior access and experience, and those with it. As Mbali expressed: 'Without computers we were nothing'.

University digital literacy practices
While the university offered all students access to computer centres, participants did not consider the resources sufficient. The majority (60%, or 12 participants) found the technological resources on campus unsuitable. Of the participants who found access unsuitable, the majority complained of pressures on their time and that the laboratories were overcrowded (returning to the issue of resources contestation alluded to earlier) leading to participants employing innovative strategies such as swiping friends' student cards to obtain access to centres in other faculties. Many of the computer laboratories were shared by students and sometimes used as teaching laboratories simultaneously. Teaching timetables were prominently displayed at the entrance to these labs so that students were aware of the time constraints. However, students such as Elsie complained: 'You are typing … and you have to go'. At times, the students were still busy working on the computers, and would have to leave to make room for a teaching session, leaving their work incomplete. Shared resources were obviously unacceptable to students. Another practice that students found unacceptable was that the labs closed early, and were not always open over weekends. This affected resident students in particular, in the sense that that they could not work at their leisure after hours, or over weekends.

Digital-literacy practices: Compensating for uneven access and taking multiple routes
We found greater participation among students who had been encouraged by family members and high school teachers. Perceptions of limitation serve as powerfully as actual limitations to constrain participation since, as Gee (1996) suggests, literacy is a situated and social practice. Demotivation in these instances often goes hand-in-hand with marginalisation and then isolation. For example, in

an interview, Sibonelo expressed his demotivation because of access and time pressures. Although the majority of the participants had only started using the Internet in the year that this study had been conducted, they had already developed an idea of how and what they perceived they could benefit from technology-based interventions, and created alternative access routes to attaining digital literacy.

All participants made use of friendship networks and university short courses to develop digital literacy access skills. They relied on friends as tutors and proficiency was therefore gained in an ad hoc manner. Three of the international students, whilst enjoying previous access to computers at school, had not learnt to use the Internet as a teaching-learning tool. Leonard, from South Africa, commented that not being able to use technology left him feeling 'less worthy' than other first year students:

> I feel less worthy if I do not have computer use. If you make it here it is not the end of the road. I went to a course, but even the course was a waste. I went with M…. but even with a friend it's not the best thing if two don't know. You can feel stupid.

Minimal access to and lack of proficiency in digital technology led to experiences of disempowerment and marginalisation aligned with class and privilege in South Africa. Blessing said:

> (Black) Students aren't taught – this makes me angry. This is the disadvantage. If we are not taught, we pick up the skills if we can. White students can do it, even Indian students if they have computers in school and at home. It becomes a political issue. This is not a democracy. How can we compete for jobs then?

Of significance here is also the symbolic value, in Bourdieu's (1991) sense, ascribed to the perception of being 'able' to use an electronic or Internet resource. In our observations we found it not uncommon that some students sit in shy inactivity at machines, unaware of how to perform a task. Being seen to be capable carries a particular status as part of an 'in-group'. Performance is evidently a symbolic gateway to participation. Participants were primarily reliant on guidance to perform in this community of practice (CoP), to borrow from Lave and Wenger (1996).[3]

To this end participants engaged in three overlapping communities: public, private and global. In the public CoPs to which the researcher had access, students debated using discussion threads about issues that arose in class. They also participated in private communities to which the researcher did not have access, but was later told about, where they exchanged personal information and shared items such as jokes which were not related to class discussion. Their global CoPs arose from their e-pal exchanges with international students,[4] which was one of the threads of the online component of the class, described earlier in this article in the section entitled 'Academic literacy courses at a university in Gauteng: A digital intervention'.

To continue the point on how students compensated for uneven access to technology, Mbali argued in an interview that computers and digital activity gave her a sense of being 'something', and she equated computer literacy with a sense of power, status and achievement. This is reminiscent of Feenberg's (1991) views about technology being related to issues of class and power. Mbali also recognised the need for digital literacy as a means to secure employment, reminiscent of Fang and Warschauer's (2004) findings on the combination of English and technological skills providing valuable job market skills.

If technology provided access and performance conveyed status, as we have argued, then membership of that community enabled access to one of the dominant discourses of the university community: digital literacy (Gee, 1996). What we also observed was that those participants who claimed to be self-taught, displayed a greater sense of independence, determination, and perseverance to succeed. Common to all participants was fear of alienation and exclusion in relation to digital literacy practices.

Perceptions of using technology and the Internet: Privilege and marginalisation

Unsurprisingly, there are contradicting views on technology as is debated by techno-utopians and techno-cynics (Boshier & Onn, 1999; Boshier, 2001). Boshier (2001) explains that techno-utopians are optimists who believe that technology facilitates greater access to education and creates equity, while techno-cynics believe that technology will not significantly enhance access to education

or equity. Optimists believe that the advantages provided by technology include that it lowers educational barriers and blurs lines between teachers and learners.

Participants in the project commented mostly on the benefits or possibilities of technology: greater access to information and resources, unlimited access and contact, and an improvement in reading and writing skills. The optimists included Herman, Sibonelo, Natalie, Zinhle, Musa, Lindiwe and Alex. Sibonelo, for instance said: 'Ja, a great advantage because this is an easier way of getting information than the library, if you go there the book is out, pages are torn. The library is good, but on the computer, the information is always there'. Precious felt that it was helpful if one missed a class, that the Internet, and in particular, *Nicenet*, provided a back-up. However, the reverse is also true; that students might be tempted to miss classes and compensate for work missed by getting their notes online.

Participants also noted that their reading and writing skills appeared to improve through the use of discussion threads. We believe that writing practice helped participants to gain greater confidence in the language.[5] The strongest challenges noted by participants about technology was their lack of technological skills. One participant suggested that white and Indian students had better access to computers. Five female participants (black and white) commented on the need for better time management skills when students are using the Internet. Earlier we described the pressures experienced by participants and it is interesting to note that time pressure and inadequate time-management skills are considered together as both the ability to access information efficiently, and also to manage time in relation to the contestation of space and facilities at the university. The excessive availability of information was noted by two male participants: Xing and Leonard. Such observations are not limited to our interviews. Derewianka (1993) too has commented on the breadth, rather than the depth of information on the Net.

Reflections on the use of digital technology

Drawing on their digital literacy practices, the majority of the participants had minimal access to digital technology outside the university context. Theorists, such as Street (2003) and Gee (2000), argue that different literacies are associated with different domains of life and that literacy practices are patterned by power relationships and social institutions. This is evident in participants' feeling marginalised from one of the dominant academic discourses of the university; in this case, the discourse of digital literacy.

The digital divide, still viewed as a legacy of South Africa's apartheid past, remains evident not only in the communities that the participants come from, but in the university environment as well, while autonomy and motivation appear to enable some participants to overcome this and to succeed. Their motivation and investment in technology appears to help them move from a non-technologicised world to a technologicised one in which they were previously 'caught-between'. Implications of a divide are important not only in an African context, but globally as well. What is clear is that it is not feasible to replicate models from first world countries in developing contexts like South Africa when technology is introduced. Warschauer (2002a, 2002b), for instance, cautions against replicating common weaknesses in introducing technology to developing countries, from an instrumentalist perspective, such as the use of overly-sophisticated technology, and not training teachers and key participants sufficiently in its use. Change cannot be initiated through tools alone. Lelliott *et al.* (2000) agree and caution that patterns of inclusion and exclusion, and empowerment and disempowerment differ across the globe.

It is inevitable that limited access to, and lack of proficiency in, technology hampers its use. Thus the notion of a divide might also be contested because the stratification that exists in relation to access has less to do with technology and more to do with political, economic, institutional, cultural, and linguistic contexts that shape meaning in people's lives (see also Warschauer's (2002a, 2002b) work in Egypt and Ireland). Therefore we must avoid simplistic notions of a divide as purely digital.

This article describes the experience of a variety of students who, in terms of their cultural, gender and race differences, represent the broad range of experience in terms of schooling background, and literacy backgrounds which are now normative in South African higher education institutions.

We have not argued for a deterministic view of in-school and out-of-school literacy practices and the extent to which they influence or determine later learning or advancement. What emerges is that participants made use of peer networks, communities of practice, short courses and support services provided by the university, even if they did not always feel enabled to do so. In addition, while we cannot ascribe the success or failure of learners' ability to exploit the opportunities offered within the social and physical 'learning environment', factors such as race in combination with class, ignorance in combination with fear and isolation, inexperience in combination with an absence of awareness, continue to affect access to learning.

Notes

[1] South Africa has 187 649 domains and 3002 websites, compared with Angola, for instance, with 8 domains and 136 websites (Chisholm, 2004).
[2] It is a common occurrence at university for students who are not computer literate to pay others to type their assignments. The researcher noted this practice at postgraduate level as well.
[3] Lave and Wenger (1996) use the term 'communities of practice' to show how individuals bond through activities to establish consensus, create identity, and accomplish goals.
[4] The researcher set up an exchange programme through the online component of the class where the students communicated with students at an overseas university in order to practice their writing skills in an authentic context.
[5] While the use of e-mail and discussion thread language may be regarded as a corruption of writing skills, because of the non-standard use of the language, Warschauer (in Ancker, 2002: 5–6) argues that the use of language in electronic media should be considered as a different register. The extent to which writing and reading skills actually improved, as opposed to being perceived as improved, was not focused on in this study.

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