Chapter 12 Objectified Cultural Capital and the Tale of Two Students

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Introduction

Almost a decade has passed since the participants of the ESRC seminar series on the Implications of Networked Learning for Higher Education in the UK expressed a vision for a higher education, where access and connection were championed. This chapter considers those issues of access and connection, through the lens of Bourdieu's theoretical concepts, and argues that specific types of objectified capital can change students' technological habitus, opening up the possibilities of increased access to higher education practices.

In this chapter, we report on the role of the objectified forms of cultural capital (specifically cell phones) and the ways these forms of capital inter-relate with other forms of cultural capital, shifting power relations and opening up access to the field of higher education. This is particularly pertinent in the South African context, where increased demand and participation by a diverse range of students have resulted in massification of the sector: both student numbers overall and the number of black students in particular have grown substantially since the apartheid regime ended in 1994 (Council on Higher Education 2009, p. 5). Indeed, the proportion of African students in the public higher education system as a whole increased from 49% in 1995 to 61% in the 10 years post the apartheid government. And by 2007, African students made up 63% of the total enrolment in public higher education (Council on Higher Education 2009).

At the same time, the sector is resource constrained. While there has been a steady increase in state funding for higher education since 2004, both in absolute terms and when inflation is taken into account, the proportion of the national budget going to higher education has declined (Council on Higher Education 2009).

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Equally, state spending on computer equipment has declined, leaving technological provision dependent on the ability of individual institutions to raise additional funding. In South Africa, universities increasingly rely on other sources of funding; on average, a third of their income is from non-state sources. But the capacity of institutions to generate other funding streams differs, and the proportion of funds coming from other sources differs across institutional types with universities of technology most dependent on state funding (Council on Higher Education 2009).

This is especially problematic in a country characterised by a severe digital divide and a higher education sector, where students from particular groups are disadvantaged in terms of their ICT access particularly with regard to ability and support (Czerniewicz and Brown 2009). The type of university they have access to, with that institution's concomitant ability to raise funds for learning technology, thus becomes yet another factor which can advantage or disadvantage individual students.

The cases reported in this chapter arise from long-term research on South African university students' access to and use of information and communication technologies (ICTs) principally for learning (Brown and Czerniewicz 2010; Czerniewicz and Brown 2006; Czerniewicz et al. 2009). Here, we present case studies of two students who can be regarded as exemplars of the two clusters of students we identified in a large-scale study (described later), clusters we categorised as the "digital elite" and "digital strangers". The digital elite formed 11% of our total sample - they were characterised by having more than 10 years experience using ICTs, had grown up with access to ICTs, indicated they had learnt to use a computer by teaching themselves or through social networks of family and friends and were able to solve current ICT problems themselves. We found in the South African context that this elite matched the characteristics of the "digital native" as espoused by Prensky (2001a, b), but differed in one important aspect - it was not about age, but about experience. The group identified as digital strangers was significantly larger -22% of our sample. They had not had access to computers before coming to university, had less than 2 years experience using computers and relied most often on formal channels to acquire this knowledge.

Discussions about access to ICTs in the scholarly literature and the policy discourses usually refer directly to computers – hence, the more common references to computer literacy. Even the later term ICT literacy tends to mean computers rather than other types of technology. Yet, we found that while the group of "digital strangers" in our research were indeed strangers to computer-based technology, they were not strangers to all digital technology. Importantly, they all had access to and experience of cell phones.

This is especially relevant in the South African context, where growing up digital applies to only a small proportion of the population; only 14.8% of households have a personal computer (compared – a few years ago – to 75% in the UK and 70% in the USA) (International Telecommunication Union 2007). There is also a marked connectivity divide between provinces within the country, with only two of the provinces (Western Cape and Gauteng) having a positive ratio in terms of the proportion of Internet users in a province compared with the proportion of the total

population (Goldstuck 2008). Furthermore, there is a marked rural/urban divide. One illustrative case study undertaken in the KwaZulu Natal Province involved a spatial analysis of the rural–urban divide and concluded that ICT access correlates with higher incomes and urban investment (Odendaal et al. 2008).

Yet 67% of the South African population owns a cell phone (AMPS 2010), and the number of unique South African users accessing the mobile Internet using WAP is already just about double the size of the number of users accessing the fixed Internet (Joubert 2009). Among the students we had surveyed previously, cell phone ownership was ubiquitous (98.5% in 2007) and not socially differentiated. In addition, cell phones were the main means of access to the Internet off campus by students from low socio-economic groups (SEGs) (Brown and Czerniewicz 2010).

Given that all students inhabit digitally mediated worlds, that the digital forms part of their identities and that in the South African context this is facilitated by cell phone technologies, we were keen to consider what access to such ubiquitous technology might mean in terms of accessing and contributing to higher education. We found Bourdieu's theoretical concepts a useful way to do so.

Bourdieu's Theoretical Framework

Bourdieu's framework provides a way of describing students' practices through the key concepts of "field", "habitus" and "capital". The field explains and defines the structures or systems within which individuals attempt to achieve their outcomes. It is "a structured system of social positions ... the nature of which defines the situation for their occupants" (Jenkins 2002). Higher education is one of a series of relatively autonomous worlds or fields whose complex interactions constitute society. Like all social fields, higher education is a site of struggle over resources of all kinds, as it is "a system of forces which exist between these positionsstructured internally in terms of power relations" (ibid).

Access to forms of capital is central, as "positions [in the field] stand in relationships of domination, subordination or equivalence (homology) to each other by virtue of the access they afford to the goods or resources (capital) which are at stake in the field. ... The nature of positions, their 'objective definition', is to be found in their relationship to the relevant form of capital" (ibid). Bourdieu explains that " ... the structure of the distribution of the different types and subtypes of capital at a given moment in time represents the immanent structure of the social world, i.e., the set of constraints, inscribed in the very reality of that world, which govern its functioning in a durable way, determining the chances of success for practices" (Bourdieu 1986, p. 241).

Capital presents itself in four fundamental forms: economic, social, cultural and symbolic. Economic capital refers to assets either in the form of or convertible to cash. Social capital is about connections, social obligation and networks, i.e. who you know (or do not know) and advantages or disadvantages of a person. Cultural capital occurs in three states; embodied cultural capital refers to "long-lasting dispositions of the

mind and body" (ibid), expressed commonly as skills, competencies, knowledge and representation of self-image. Objectified cultural capital refers to physical objects as "cultural goods which are the trace or realization of theories or critiques of these theories" (Bourdieu mentions pictures, books, dictionaries, instruments, machines, ibid). Institutional cultural capital is the formal recognition of knowledge usually in the form of educational qualifications. Symbolic capital is appropriated when one of the other capitals is converted to prestige, honour, reputation and fame – it is about recognition, value and status.

Importantly, one form of capital can be converted into another. The different forms of capital are different forms of *power*, but the relative importance of the different forms varies according to the field.

Habitus is the way that all the different constructs come together, the dynamic and shifting relationship between particular field and capitals. Bourdieu explains that habitus is a system of durable and transposable dispositions, developed in response to determining structures. An individual's habitus is both involuntary (outside of their control) and voluntary (changeable). Habitus is about identity, about being in the world and is the intersection between structure and agency.

It is, therefore, clear that while individuals are able to exercise agency, that agency is socially constrained and is exercised within the existing social conventions, rules, values and sanctions, negotiated specifically within the rules of the fields in which they operate.

The Project

The Overall Study

This research is based on a research project that has been ongoing since 2003. The project, which comprised three phases to date, investigates various aspects of students' access to and use of ICTs. Phases 1 and 2 involved surveys of 6,577 students from 6 universities in the Western Cape region of South Africa in 2004, and 3,533 students in 6 different universities located in other regions of South Africa in 2007. Phase 3 (on which this chapter is based) is a qualitative study which adopts a nested case study approach (Lieberman 2005). Initially, we conducted a brief survey of 513 students across 4 universities as background. This survey was undertaken on students doing computer literacy training and information literacy/library courses on the one hand and those studying courses where ICT competencies were a required professional component on the other hand.

From this, we selected students with contrasting levels of access to ICTs and a range of degrees of use and then followed this up with 114 first-level telephone interviews. We then conducted 38 second-level interviews with a subset of this group culminating in 6 focus groups.

The Case Studies

The research reported here draws on data from the Phase 3 research, in particular, two illustrative cases of students who participated in all four levels of data collection. We selected these as they represented the two extremes of digital literacy that we had encountered in the earlier phases of our research. These two cases are an example of how students exposed to different technologies at different stages of their lives used cell phones and computers for learning. The students Sipho and Nhlanhla (not their real names) are both similar (they are young, black males, live away from home and attend universities within the same province) and different (one grew up in a rural context and the other in an urban context, and they attend different kinds of institutions). Sipho attends a medium-sized, previously disadvantaged, comprehensive¹ university while Nhlanhla attends a small, traditional, previously advantaged university. Neither speaks English as a first language with isiXhosa being Sipho's home language and isiZulu, Nhlanhla's. Sipho's interviews were conducted in both English and isiXhosa and the focus group in which he participated was largely conducted in isiXhosa. Nhlanhla's interviews and focus group were all conducted in English.

Findings

Nhlanhla: The Digital Elite

Nhlanhla arrived at university part of the digital elite having "grown up digital" with his first digital experience through the family computer at age 7. He had access to a multiple range of ICTs and was a frequent user of technology socially. His advantage is manifest in his economic and social capital, especially with regards to the ability to persuade his parents to buy him new kinds of technology, as this snippet of family history indicates:

[With regards technology in the family] I was in the driver's seat, ... and my brother would be on the passenger seat and my parents would be behind us, ... my brother and I were the only people that actually really cared about technology, so it has always been us who've been in charge of, lets get this, lets do that, they don't really mind what, ja, we just tell them we need to get this and if we convince them enough then they would ... buy it

Nhlanhla lives in residence and uses three different university laboratories on campus, one of which is open 24 h a day. He has access to "pretty much all the things that any post-teen/young adult has access to … cell phone, the walkman,

¹Comprehensive universities are a new category of higher education institution in South Africa which involved a merger between a university and a former "technikon" in the restructuring of the higher education system which occurred post 2000.

the iPod, laptop, computer and the internet". He has a smart phone, not even a year old, and has Internet access and Wi-Fi so if he can find a hotspot he can use his phone for downloads. He would prefer to have Internet on his laptop, but his "*mother complained about the bill so she disconnected it*".

Nhlanhla remembers first starting to use the family computer at age 7. His formative experiences were with computers. He acquired his first cell phone when he was 12 years old. He was motivated to start using technology by interest "since my father was also into it, and we enjoy doing the same things, we both got into it". As he was growing up, he "would read about technology in magazines, etc". Nhlanhla is extremely confident with using technology saying that he finds pretty much everything easy because "I've grown up with computers so I can do all the basics and quite a lot of the advanced stuff".

His activities and interests are sometimes curriculum driven "I do information systems and I'd love to go into the programming section of my work. Right now we're doing databases and word documentation and we haven't got to the programming part yet".

Nhlanhla has a wide range of options in terms of access to technology and as a result he makes his choices about his technology practices in order of preference. He uses his phone to access the Internet as his first preference. "At the beginning of the month yes a lot because that's when my contract has just been recharged so I can afford to but towards the end of the month my contract is nearly exhausted so I use the computers on campus". Once he runs out of cell time, if "I don't feel like walking out at night so I ask my friends if I can use their internet" and "If I need to use the internet desperately and my friends are busy I would primarily go to the jet labs or the union labs".

He values both cell phone and a laptop but would prioritise the cell phone: "*Right* now it's the cell phone, sometimes it's hard to lug around a laptop everywhere so I'd say a cell phone is important, with internet access. My cell phone has wifi so if there's a wifi spot I can use my phone to download something". Although the cell phone came later in his overall ICT experience and is part of a myriad of technological devices, it is his first preference in terms of Internet access and if he could buy any new technology in the next 6 months, it would be a cell phone with more highly developed capabilities.

Sipho: The Digital Stranger

When Sipho arrived at university, he was a digital stranger having only just been exposed to computers for the first time in his final year of school, not having had access to ICTs while he was growing up.

On campus, Sipho's choices are limited: the general university labs require booking and have a time limit on use and his department labs which "we have to share ... with the first years, second years, all those guys". He lives away from campus and has an old desktop computer for university that he describes as "not that good,

the thing is old. It has Windows 2000. So it lacks some things, anything that requires javascript it can't accommodate". His father and brother do use a computer at work and when he goes back home he takes his computer with him and "we only use it to play music and fun and games, that kind of thing, so nothing serious that we do". In addition, he has a cell phone with WAPs well as a flash drive.

It was through his cell phone that Sipho had his first exposure to ICTs, the Internet and indeed was able to teach himself how to use a computer, and it is through the cell phone that he has the majority of his ICT-based social engagement. His earliest digital experiences were acquired first through his cell phone which his parents bought him in his final year of school. While he was also introduced to computers around this time, his first experience of the Internet was through his cell phone. He taught himself how to use the cell phone via the manual and how to use a computer by downloading computer tutorials through the Internet on his cell phone and then working through them on his desktop. He did not do a computer literacy course when he started university as he was confident using ICTs, but he has had training through his degree programme as he is studying computer science.

Sipho is passionate about technology and about using it to access information, "Yes, you must always search so that you remain up to date – so that you avoid being outdated. In other words in order to be up dated you must subscribe to those development sites, so that you often get newsletters – so that you know what is happening currently – what is happening just around". He continues to teach himself new skills, "I was learning about creating html pages, and we don't do that in school. And also the linux stuff, how to work on the linux 08".

While Sipho's access to technology is more limited in terms of what technology he can use off campus, it appears that his choices are more strategic and driven by activity. In contrast to Nhlanhla, he has to make choices about which tasks to do in the light of what technology he has available to him. When Sipho is at university, he uses the "school" computers, but these have limitations because "they are some things you seem to be unable to be done on the internet for instance because the administration and all that kind of stuff because ... there are so many restrictions". He uses his home computer for studying and storing things. He finds "doing assignments and such things more easy on the computer because the computer has the keyboard and mouse and when it comes to a cell phone it would be difficult to do it". He uses his cell-based Internet to solve problems, "When I am studying at home or when there something that I think of doing, maybe I come across that particular topic that I am not good at, I then use internet – in other words it's some bit of research". But he is conscious of the limitations of mobile Internet "because in most times a cell phone produces different results from those of a computer – it's a bit limited, so if I want to do a thorough research I then use a computer or when I realize that its something that I must go deeper into it – but if I just want it to introduce something for me, then I use it (a cell phone), --I think it assists me but if I want to understand something that is difficult or if I am also looking for the other sites because the other sites are not compatible with my cell phone, so then a computer accommodate those".

Overall, while Sipho considers computers important, he says he cannot live without his cell phone.

Discussion

With access to capital of all kinds shifting in different conditions, and varying at their respective universities, the two students use a range of technologies in a range of locations to facilitate their learning activities. In previous studies, we found that on-campus access was the key mechanism for ensuring equality of access for all students given that off-campus access has been so varied and unequal (Czerniewicz and Brown 2009). Certainly, that is still true in these cases, as both students do have and use on-campus access. Yet, off campus, despite obvious differences, there are important similarities between these two students, with the central leveller being the cell phone. The increasingly complicated relationships users have with the different types of technology have led researchers Donner and Gitau (2009) to suggest that "mobile-centric Internet use" can occur in different ways. They created a typology of mobile-only Internet users and mobile-primary Internet users, with subcategories for those who had and those who had not used a PC prior to mobile Internet.

How are these students similar and how are they different? What can be observed about their individual habitus? Does the appropriation of a particular form of objectified cultural capital change the power relations between students usually regarded as advantaged and those traditionally regarded as disadvantaged? Does access to the field of higher education shift for particular individuals?

We see in these accounts the different ways that two students have converted their embodied cultural capital into an integral part of their person, i.e. their habitus. We are able to observe their "ways of acting, feeling, thinking and being. It captures how [they] carry within [their] history, how [they] bring this history into [their] present circumstances, and how [they] then make choices to act in certain ways and then not others" (Maton 2008).

Both students have appropriated a specific type of cultural capital in its objectified form. They both acquired the economic capital to appropriate the material object and have attained the embodied cultural capital in the form of appropriate knowledge and skills to use ICTs for their cultural capital, in terms of "the digital", to be recognised or represented, thus acquiring important symbolic capital.

However, although each student acquired the symbolic capital of digital literacy, they have not done so the same way nor have they had the same choices. This is not unexpected, as the process of choice is influenced by an individual's cultural and social capital and material constraints (Ball et al. 2002). This resonates with other interpretations of Bourdieu's conceptualisation of the differences between people's choices as "the opposition between the tastes of luxury (or freedom) and the tastes for necessity" (Bourdieu, 1986, p. 177–178; Ball et al. 2002). Nhlanhla can make choices around what he prefers in terms of technology as he has access to multiple technologies in multiple locations. However, Sipho has to make his choices out of economic necessity because he does not have the same freedom of choice and must use the technology that is available to him either on or off campus.

For our two students, both the age at which the "work of transmission and accumulation of embodied capital" (Bourdieu 1990) began and the way in which

occurred are markedly different. This is important because, as Bourdieu (1986) reminds us, cultural capital "always remains marked by its earliest conditions of acquisition ...". The process through which our students appropriated the objectified cultural capital and the time necessary for this to take place have also had a marked influence on their attitudes. As a "digital elite", Nhlanhla is comfortable with what he knows and feels confident that the opportunity to learn presents itself. Having grown up in a family endowed with strong cultural capital in terms of ICTs, he has always had the opportunity to accumulate his embodied capital and he can continue to assume that when he needs to acquire new digital skills he will be able to. He has no reason to suspect that the opportunity does not present itself and there-fore no need to ensure that he grabs the chance when he can.

On the other hand, Sipho having started off as a "digital stranger" has had to acquire his embodied cultural capital in a much shorter time frame. His agency is expressed through motivation in learning new things and advancing his digital literacy. Sipho's demonstration of agency is not unique; we have previously examined the "inventive capacity" students show to "circumvent the constraints imposed by structures" in earlier research (Czerniewicz et al. 2008).

However, what is relevant in this discussion is that the cell phone has been integral in enabling Sipho's agency – his habitus has been "reconfigured" by access to embodied cultural capital in the form of a ubiquitous technology. The opportunity afforded by the cell phone for Sipho to fast track the appropriation of the embodied capital to be able to successfully use ICTs for his learning in a way that has reconfigured his identity as the "digital stranger" he was when he entered university.

Bourdieu's theoretical approach has been criticised for being determinist, and indeed the difficulties of change are illustrated in his comment that "the precondition for the fast easy accumulation of every kind of useful cultural capital, starts at the outset, without delay, without wasted time only for the offspring of families endowed with strong cultural capital" (1986).

On the contrary, Sipho's story provides evidence that the structures of habitus are not "set", "but evolve – they are durable and transposable but *not immutable*" (Maton 2008). Thus, these two stories indicate that habitus can change and that access to specific forms of objectified cultural capital can have far-reaching effects.

Conclusion

It is through habitus that individuals are able to appropriate and maximise different forms of cultural capital. In order to do so, they need an understanding of the field, its required activities and its legitimate discourses. Thus, capitals exist in terms of field, and may have different values in different constellations in different fields. The field of higher education is especially rule bound, both explicitly and implicitly. South African universities have mixed responses to the use of cell phones with few utilising them proactively for educational ends; indeed, some academics even ban their use in lecture theatres. Even so, students are using this technology to access the practices of higher education, often without the knowledge and buy-in of the institutional authorities. In these two cases, both students are seen to be using cell phones for learning, with the more disadvantaged student benefiting particularly. This study opens up questions regarding the relative importance of how capitals vary, and in particular the relationship of the different forms of cultural capital to one another and to the field of higher education is of special interest given that cell phones have great legitimacy in other fields.

The question also arises as to how one form of cultural capital is converted to another. The assumption is always that it is embodied capital which is required for the objectified state of cultural capital to have any meaning, but this study suggests that the acquisition of a particular form of objectified capital (i.e. the cell phone) has an influence on – indeed transfers to – the embodied capital itself. It also raises the question of how social capital inter-relates with cultural capital, especially in the light of the requirements of the field. While both students access social capital, this is variable and assists them differentially. Thus, social positions can be changed and shifted by increased access to different forms of objectified cultural capital.

Bourdieu's framework had provided a useful tool for the exploration of the complex and multi faceted concept of access to higher education as mediated by ICTs, expanding the notion beyond the simpler one of mere access to the technology itself.

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