Information technology as cultural capital

Michael Emmison and John Frow

Introduction

In this paper we explore the relevance of the concept of cultural capital - understood here as an alternative to the more traditional measures of socio-economic disadvantage - in the context of a discussion of the significance of information technology (IT) in contemporary societies. Our argument is that there are important analytical connections between these two phenomena and that in some respects they can be seen as mutually constitutive. On the one hand, the educational advantages which are perceived to accrue to individuals and families 'rich' in traditional forms of cultural capital can be readily invoked to explain the variations in uptake of IT by households from different socio-economic backgrounds. On the other hand, the skills and competencies which IT use entails can, we suggest, be conceptualised as a form of cultural capital in their own right. Although these competencies play no part in Bourdieu's original formulation, we argue that the concept is sufficiently flexible to incorporate these additional dimensions. In the first part of the paper we look at the conceptual foundations of cultural capital and at how the term might be extended to include the systems of knowledge accompanying IT usage. In the second part we develop these points by considering some of the research findings into households' involvement with IT. Using data from the recently completed Australian Everyday Culture Project we examine the relationships between IT usage and cultural capital that are evident in a national sample of Australian households.

Cultural capital

The concept of cultural capital was developed in the early 1960s by the French sociologist Pierre Bourdieu, together with a team of collaborators, as a way of performing two complementary tasks. The first was to explain the way in which advantages of birth or wealth are translated into social prestige by a displacement of these primary indicators of social power into partly autonomous systems of aesthetic and cultural values. The second was to elucidate the mechanisms by which patterns of social advantage are reproduced in and through the schooling system despite the fact that modern centralized state education systems were de-signed specifically to provide equality of opportunity for children of all classes. An alternative explanation would of course involve making the double assumption (a) that natural talent is the basis of social advantage, and (b) that talent or intelligence is genetically transmitted; but these assumptions hardly explain why it is, as Bourdieu and Passeron (1964: 12) put it, that - in the France of the time - a child of upper-class parents had eighty times the chance of entering tertiary education as the child of an agricultural labourer, forty times that of the child of a worker, and twice that of the child of middle-class parents.

The notion of cultural capital is of course a metaphor, and has a close analogy with Becker's (1964) concept of 'human capital'. In his most precise treatment of the concept Bourdieu (1986: 241-2) defines capital as 'accumulated labour (in its materialized form or its "incorporated," embodied form) which, when appropriated on a private, ie., exclusive basis by agents or groups of agents, enables them to appropriate social energy in the form of reified or living labour'; the distribution of capitals amongst individuals and classes determines 'the chances of success for practices'. By 'capital' Bourdieu does not, however, mean solely financial wealth; rather, he distinguishes between three forms in which the crystallization or reification of 'social energy' is manifested:

> ...as economic capital, which is immediately and directly convertible into money and may be institutionalized in the form of property rights; as cultural capital, which is convertible, on certain conditions, into economic capital and may be institutionalized in the form of educational qualifications; and as social capital, made up of social obligations ('connections'), which is convertible, in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility. (Bourdieu 1986: 243)

Like the other two forms, cultural capital is unequally distributed amongst social groups - or, to put this more precisely, it is differentially formed in accordance with the different experiences and conditions of existence of the different social classes. These experiences and common conditions, however diverse they may be for individuals, are integrated in what Bourdieu calls the

habitus, a 'system of durable, transposable *dispositions*' (Bourdieu 1977: 72) which produces ways of looking at the world and of operating in it which are relatively common to the members of any particular social class and which is something like a 'class unconscious'. Within the schooling system, the differences between habitus are reinforced and intensified, and are thus translated into differences both in modes of learning, and in the kinds of knowledge that are acquired; the school rewards certain kinds of attitude and competence, and disfavours others (Bourdieu and Passeron 1970: 25). This is to say that there is an 'affinity' (which is of course in no way accidental) between the cultural and cognitive habits of the higher social classes and the criteria of acceptance and success in the school system, and it is this affinity, rather than innate ability *by itself*, which explains the relatively greater success rates of students from those classes (Bourdieu and Passeron 1964: 37). The habitus, and the cultural capital that flows from it, thus provide the cultural and cognitive *resources* for scholastic success (or, alternatively, set in place the conditions for scholastic failure).

Perhaps the most lucid and fully elaborated development of this argument is to be found in Bernstein's (1971) distinction between class-specific familiarities with 'universal' and 'restricted' linguistic codes, and his account of the 'fit' between the codes of speech and interaction acquired in the home and the pedagogic modalities employed and valorized in the school. Other examples of the workings of cultural capital in the reproduction of social inequalities would include the effects on learning of a familiarity with the use of books which is acquired in (typically middle-class) homes, or of a predisposition to acceptance of and an already acquired competence in the codes of 'legitimate' culture (art or music, for example). In the broadest sense, these translation mechanisms involve a competence, pre-existing the school but reinforced within its pedagogic forms, in the use of technologies of learning. Such a competence, as Bourdieu (1984: 2) argues, generates a sense of security in working with the cultural systems and the systems of knowledge which are legitimated by the school. It would seem, on the face of it, that the information technologies constitute a comparable learning technology, and that its unequal distribution is likely to have effects similar to those of the unequal distribution of cultural capital.

The concept of cultural capital was, of course, forged long before the information technologies had begun their migration from the more specialised commercial or business environments where they were first established to the school and the home. But Bourdieu's references to the concept suggest that, were he setting out today to theorise the analytical tasks originally assigned to the term, the skills and systems of knowledge which have accompanied the 'information revolution' would have to

figure prominently. In one of his discussions Bourdieu (1987) uses the synonym 'informational capital' in explicit reference to cultural capital. Elsewhere, in his description of the forms which cultural capital can take Bourdieu refers specifically to the 'embodied' state, by which he understands the long-lasting disposition of the mind and body associated with the habitus; to an 'institutionalised' state which embraces formal educational credentials; and thirdly, to an 'objectified' state in the form of cultural goods such as pictures, books, dictionaries, *instruments* and *machines* (1986: 243 our emphasis). Cultural capital in this third, objectified, form, however, has a particular relationship to that which exists in the embodied form. As capital, objectified cultural goods, such as a collection of paintings or a machine, have properties of transmissibility which they share with pure economic capital; they can be both acquired and disposed of with relative ease. However:

> ....*what is transmissible is legal ownership and not ... what constitutes the precondition for specific appropriation, namely, the possession of the means of "consuming" a painting or using a machine.* (Bourdieu 1986: 246-7)

For Bourdieu the means of consuming cultural goods are, in effect, an embodied form of cultural capital and their acquisition is thus subject to the same logic which underpins the transmissibility of cultural capital as a whole. This is a logic which,

> ...*insofar as it implies a labour of inculcation and assimilation, costs time, time which must be invested personally by the investor. Like the acquisition of a muscular physique or a suntan, it cannot be done second hand.* (1986: 244)

There is, then, implicit within the overall arguments that Bourdieu deploys in relation to the concept of cultural capital, an assumption that an early exposure within the family to the use of scientific instruments, machines and other forms of technology could be as efficacious in bestowing privilege and advantage on children as the more traditional forms of competence in the fine arts.

Households and information technology

Articulations of this kind have been the staple ingredient of many of the popular or journalistic accounts which have accompanied the home computer 'invasion'. Typical of these is an article in *The Futurist* in September 1986 in which Rowan Wakefield waxes lyrical about the advantages the computer will bring to the American family:

> [T]*he family and the home computer form a potentially unique and ideal marriage. The family, society's truly multipurpose institution, is unique in its potential to take full advantage of the vast capabilities of the*

computer, civilization's first multipurpose technology. With a computer, the family can create, manipulate, transmit, store and retrieve information and gain access to economic, political, educational, social, and cultural information. (Wakefield, 1986: 18)

Wakefield envisages that the impact of the computer on the family will be a social revolution every bit as profound in its consequences as that concerning 'the democratisation of information use begun more than 500 years before by Gutenberg' (p 19). Families - an institution which for him is entirely undifferentiated by class, region or type - will be empowered in their relations to government, to professional service delivery, to work, the marketplace, the creative arts, and to communication at large. As to exactly how this empowerment might occur, Wakefield is less clear. Only towards the end of the article does he point to a possible agent. 'Today's youth', he argues,

> *...will bring computer skills to their own families and households in the 1990s finally giving families the in-house computer competence they have lacked. Only then will we see the family/computer marriage fully consummated.* (1986: 22)

Wakefield's article is one of numerous examples which extrapolate from current rates of home computer penetration to a time in the imminent future - the precise forecasts vary somewhat - when almost all households will be in a position to share in the information bonanza of the digital age.

There have, of course, been some more sober assessments of these trends. The influential UK weekly *The Economist* in its leader of October 17 1992 entitled 'The homeless PC' argued that personal computers had yet to find a significant place in the home and that it was unlikely that they ever would. Most computers destined for the home, *The Economist* argued,

> *end up in the back-bedroom offices of self employed businessmen, writers and telecommunicators. Out of the office and into the home office is about as far as the personal computer has been able to get.* (p. 13)

Given the arguments made above about ease and familiarity with mechanically based systems of knowledge as a form of cultural capital, it is of interest that the magazine identified the issue of technical competence as the primary reason for this state of affairs. 'The average consumer', it suggested, 'does not understand computers ... the computer industry has yet to sell a PC which can be used by a novice, straight out of the box'. Nor was

the much vaunted 'multimedia' convergence likely to have a significant impact on home penetration, although the reason here is one of technical *development* rather than technical *competence*: 'multimedia needs the PC much less than the PC needs multimedia ... tomorrow's multimedia extravaganza will be showing on the HDBW (high definition bedroom wall), not on the cramped screen of a personal computer' (p. 14).

It is clear, then, that there are conflicting assessments of the likely uptake of information technologies by households. Moreover, almost all the existing empirical research into domestic use of such technologies has tended to be small-scale and ethnographic in focus (Haddon 1994; Murdock, Hartman and Gray 1994; Silverstone 1991) and, as a consequence, has looked at households which are committed users of IT rather than exploring the possible reasons for, and social correlates of, the equally important issue of non-uptake. Whilst this research has yielded some valuable insights into the articulation of information technology and 'the moral economy of the household' (Silverstone, Hirsch and Morley 1994), an overall appraisal of the existing extent of IT usage has not been forthcoming.

Cultural capital and information technology: some empirical connections

Figures from the Australian Bureau of Statistics (1996) 'Household Use of Information Technology' report estimate the number of Australian households with PCs at just over 30 percent. Of the 4.7 million homes which did not own a computer, 41% reported they had no use for a computer and 31% indicated that the costs were too high. Economic barriers to IT uptake should therefore not be underestimated, but it would seem that the primary reason for a household's not availing itself of IT is cultural: an uncertainty as to the benefits it would bring, perhaps coupled with (although this may be a more fundamental displaced reason) the absence of the 'means of consumption'.

Data generated as part of the Australian Everyday Culture Project[1] offer some insights into the social distribution of these competencies as well as a more detailed breakdown of the IT-using households. The project has generated comprehensive information about the demographic correlates of home computer ownership and use, but it also has available independent measures of scholastic and beaux arts forms of cultural capital which can be used to further clarify the character-

istics of IT users. The following tables present a schematic outline of the associations between some of the relevant variables.

Table 1 Home computer ownership by number of books in household

less than 50	50-100	100-200	200-500	more than 500
17.7%	32.6%	42.1%	45.0%	57.4%

Table 3 Home computer ownership by household income

>15,000K	15-26000K	26-40000K	40-60000K	60-80000K	80000K<
19.9%	26.7%	33.2%	47.2%	52.2%	64.8%

Table 2 Home computer ownership by length of time since visiting an art gallery

> 1 month	2-6 months	6 mths - 1 yr	1-5 years	5-10 years	never
42.5%	43.0%	40.%	38.2%	33.1%	27.2%

Table 4 Home computer ownership by class and age of youngest child

	Age of child				
Class location	>1 year	1-5 years	6-12 years	13-19 years	20 years or more
Employers	22.3	65.2	75.5	69.7	41.0
Self-Employed	24.7	48.9	54.7	55.2	23.1
Managers	30.2	55.2	66.8	65.6	26.7
Professionals	39.5	49.9	85.1	73.5	45.8
Para-Professionals	55.4	35.6	72.3	90.5	44.3
Supervisors	4.6	45.4	57.5	56.9	22.7
Sales & Clerical	29.4	23.2	51.1	58.2	33.7
Manual	4.1	36.2	51.8	43.6	24.8

Several important trends can be identified in these data. Table 1 which shows the relationship between PC ownership and number of books in the household suggests that a familiarity with IT is part of a broader constellation of factors tapped by this scholastic measure of cultural capital. In short, the more literary inclination a household displays the more likely it is that it will also be an information technology user. From table 2 we observe an association between an orientation towards IT and patronage of art galleries although the relationship is not as marked. Those who report attending galleries most frequently (within the last month) are marginally less likely to be computer owners than the group who have patronised galleries within the last six months. Moreover, although there is a gradual decline in PC ownership evident among the remaining categories of gallery visitors the figures do not substantially dip until the cohort who have not visited for more than five years. Overall we find that there is still a sizeable percentage of the population who use IT who have no interest in this form of cultural participation.

Table 3 suggests that economic barriers to IT usage do remain significant. As each level of household income increases there is a greater likelihood of the household's owning computer technology. Table 4, which moves beyond cultural and economic measures of capital, documents a strong trend linking family type with IT usage. There are important gross variations in class ownership rates - reflections of the class distributions of cultural and economic capital to which we have just referred. But for all classes a household is more likely to have made an investment in IT if its composition includes children, particularly pre-teens and teenagers. We note that majorities of each class report owning a computer *at some stage* in their reproductive cycle.

Conclusion

The concept of cultural capital remains one of the most theoretically fertile metaphors linking family background, scholastic achievement and social advantage. In this paper we have suggested that Bourdieu's original formulations of the term are sufficiently flexible to embrace systems of knowledge not generally considered to be part of the core dimensions of the concept. A familiarity with, and a positive disposition towards the use of, the burgeoning technologies of the information age can be seen as an additional form of cultural capital bestowing advantage on those families which possess them and the means of appropriating their full potential. At the same time, using the most current empirical data available, we have identified the characteristics of IT users and some of the correlations between the possession of this form of cultural capital and more conventional measures. Pointing to a degree of analytic independence between these variables, the data raise the possibility that uptake of IT may be simultaneously conditional on existing accumulations of cultural and economic capital.

References

Australian Bureau of Statistics (1996) *Household Use of Information Technology, Australia* (8128.0).

Becker, Gary S. (1964) *Human Capital: A Theoretical and Empirical Analysis: With Special Reference to Education*. New York: National Bureau of Economic Research.

Bernstein, Basil (1971) *Class, Codes and Control*. London: Routledge and Kegan Paul.

Bourdieu, Pierre (1977) *Outline of a Theory of Practice*. Trans. Richard Nice. London: Cambridge University Press.

Bourdieu, Pierre (1984) *Distinction: A Social Critique of the Judgement of Taste*. Trans. Richard Nice. Cambridge, Mass.: Harvard University Press.

Bourdieu, Pierre (1986) 'The Forms of Capital', in *Handbook of Theory and Research for the Sociology of Education*. Ed. John G. Richardson. New York: Greenwood Press.

Bourdieu, Pierre (1987) 'What makes a social class? on the theoretical and practical existence of groups' *Berkeley Journal of Sociology* vol 32 pp 1-17.

Bourdieu, Pierre and Jean-Claude Passeron (1964) *Les Héritiers: Les Etudiants et la culture*. Paris: Ed. de Minuit.

Bourdieu, Pierre and Jean-Claude Passeron (1970) *La Reproduction*. Paris: Ed. de Minuit.

Haddon, Leslie (1994) 'Explaining ICT consumption: the case of the home computer' in R. Silverstone and E. Hirsch (eds) *Consuming Technologies: media and information in domestic spaces*. London: Routledge.

Murdock, Graham, Hartmann, Paul and Peggy Gray (1994) 'Contextualising home computing: resources and practices' in Silverstone and Hirsch *op cit*.

Silverstone, Roger (1991) 'From Audiences to Consumers: the household and the consumption of communication and information technologies' *European Journal of Communication*, vol 6 pp 135-154

Silverstone, Roger, Hirsch, Eric and David Morley (1994) 'Information and communication technologies and the moral economy of the household' in Silverstone and Hirsch *op cit*.

Wakefield, Rowan (1986) 'Home Computers and Families: the empowerment revolution' *The Futurist*, Sept-Oct 1986 pp 18-22.