Chapter 4

Class Relations and the New Media Environment

Resources in an informational class framework – lessons from the new media research field

In the previous chapter I outlined the opportunity for identifying "informational class groupings" to analyse contemporary socio-economic reproduction. Following Portes' advice, while acknowledging that "social capital" and "cultural capital" are important factors in these groupings, it is the specific processes that construct this capital that need to be elaborated. This contemporary narrative of class, then, makes no description of class positions that subjects occupy on a permanent basis. Instead, I hope to provide tools for identifying collectivity in particular situations. My approach is to use four types of *resources* that are brought to situations of exchange: *material, financial, cultural,* and *social*. These types of resources are commonly identified amongst the literature on socio-economic inequality reviewed so far, so I suggest that this taxonomy should be uncontroversial.

What is interesting, however, is that while these four threads have been identified at the macro-level of economics and sociology in discussions of capital, they *also* appear at the micro-level in studies of particular subjects' new media use. For example, such concepts are becoming evident in the interdisciplinary literature on the social impact of new media – including the "digital divide", where physical and economic barriers to individual ICT use are being extended to include socio-cultural factors. If the role of a reconstructed class narrative is to theorise the link between individual experience and broader socio-economic processes, then this widespread identification of these four resources in both individual subjects and macroeconomic levels suggests that they could potentially gain substantial theoretical traction.

The digital divide, with its simplistic binaries between have and have-nots, may seem like a curious field to mine for conceptual support on the complexities of the emerging information society. Theorists such (Warschauer, 2003), in correctly arguing against a simplistic digital divide, have proposed that "there is not a binary division between information haves and have-nots, but rather a gradation based on different degrees of access to information technology" (Warschauer, 2002; Cisler, 2000 makes a similar point). While agreeing with their critique of the divide literature, their "gradational scale of degrees of access" remains subject to the issues of income-scale economic analysis vs. class analysis identified in Chapter Two. That is, gradational scales reduce inequality to a single dimension, and say nothing about the relationships *between* subjects at different points on that scale or how they come to be there. However, there are important lessons to be taken from this literature both in its findings and its

methodological approaches.

The rise of the divide as a research and policy trope in North America placed physical access to ICTs as the primary structuring factor in access inequalities, and numerous studies were undertaken which documented the highly unequal access to computers enjoyed by different sectors of local, regional, national, and global economies (see the work of the Pew Centre for classic examples in the United States, e.g. Lenhart, 2000). But while inequalities in Internet use are generally considered to be primarily an *economic* problem of resource scarcity, philanthropic attempts to provide physical access to computers and internet connections have often failed, as non-users failed to find reasons *why* they should use the new technology in the first place.

Mark Warschauer has undertaken one of the most significant renovations of the digital divide concept. Writing from North America, he has been involved in the dialogues that have led to the term's development, and has only recently proposed to abandon the terminology due to its well-documented failings. He observes:

> Access to ICT is embedded in a complex array of factors encompassing physical, digital, human, and social resources and relationships. Content and language, literacy and education, and community and institutional structures must all be taken into account if meaningful access to new technologies is to be provided. (Warschauer, 2002)

The "cultural factors" at work in Warschauer's analysis are what Hargittai (2002) sees as constructing a "second-level digital divide", and a range of empirical evidence illustrates their increasing importance in the emerging new media environment. Castells and Diaz de Isla (2001) demonstrated that education level is a much better predictor than income of Internet use in most Western countries. For example, in the Catalan region of Spain in 2001, over 60% of the population with a University degree are Internet users, compared to only 10.8% of those with primary education, and only 5.3% of the population without primary education. Looking back to the last chapter, there are clearly strong similarities between Hargittai's variables and the factors that are increasingly seen as important in informational economies. A description of the four types of resources in the proposed analytical model follows.

The possession and deployment of resources in markets

Physical resources

Consideration of "access" to Information and Communication Technologies often begins with a consideration of financial resources. However, there are many situations where having money does not itself guarantee access to exchanges.

People with physical disability are the most keenly aware of the side effects from overlooking issues of physical access. Celeste Langan (2001) identifies two important factors in consideration of mobility that should be analytically separated: equality of opportunity (in her example, wheel-chair accessible roads), and the financial resources to take advantage of that opportunity. In the ICT context, Gerard Goggin and Christopher Newell (2002) highlight significant physical barriers to ICT use among differently abled people, and the ease with which these barriers are overlooked. In particular, they identify that it is precisely large, expensive website projects (such as the Sydney Olympics website) that fail to consider accessibility issues, even though they are most able to afford to do so. As well as immediate personal barriers, geographical situations can physically structure access to exchanges and conversations, and some of these can only be overcome via financial considerations so high it makes sense to keep them analytically separate. For example, areas without cellular or terrestrial phone coverage still remain essentially excluded from many informational exchanges (ORBICOM, 2002).

If the links between new media network infrastructure and transportation are explored (telecommuting, the "information superhighway"), factors denying access to networks are analogous to those constraining freedom of movement. As Ivan Illich puts it:

> It should be irrelevant to [citizens seeking equity] by what means the exercise of personal mobility is denied, whether by imprisonment, bondage to an estate, revocation of a passport, or enclosure within an environment that encroaches on a person's native ability to move in order to make him a consumer of transport. (Illich, 1978 p.138 quoted in Langan 2001)

In seeking ways to consider the issues of physical access to ICTs, productive articulations can be made between personal mobility due to corporeal variation, geographical dispersal, and infrastructural development priorities. This has been a generally under-explored area of new media development. In the logic of the framework I outline here, there may be many situations the physical resources may be equal

enough among different groups to not require consideration. However, there are many situations where this is not the case, and for this model such factors need to be considered as a structuring variable before all others.

Financial resources

Despite the recent and much needed emphasis on the social factors constraining ICT use, the problems of financial access to information and communication technologies should not be underestimated. Even in the United States, with the highest Internet use of any country, about 42% of the population remain non-users, with about a third of non-users of the Internet citing cost as a major factor (Lenhart, 2003). Overall, however, the major division in access exists between first world nations and developing countries. Although ten percent of the world's population was online in 2002, 88 percent of Internet users resided in industrialized countries. More than 80% of people in the world have never heard a dial tone, let alone sent an e-mail or downloaded information from the World Wide Web (World Economic Forum, 2002) Large differentials in "teledensity" and availability of ICTs are evident in all the published literature (see for example ORBICOM, 2002).

With the centrality of financial resources for ICT development and rich-poor inequalities being well described in the digital divide literature, I will not spend much time elaborating on them except to reinforce their importance as an analytical variable in discussions around information exchange.

Cultural and Social resources

The role of cultural and social resources have only recently received extensive theoretical consideration in relation to the "economy", and thus there is less agreement around how exactly these terms should be defined and measured – although in Portes' (1998) opinion the definitional debates are primarily a function of sloppy research. I believe it is useful to distinguish, as Bourdieu does, between cultural and social resources, even though the two are related.

For Bourdieu (1984) cultural capital includes a range of competencies that bring status in social groups. They are often tacit (uncodified) in nature but are accumulated through explicit and often quantifiable means. For example, a degree from an elite University provides many cultural resources other than the formal qualification: the experience of learning within that environment provides familiarity with a certain lifestyle, knowledge-base, and set of unspoken conventions that Bourdieu termed the *habitus*.

Social resources, on the other hand, are gained by participation in groups, and are associated with explicit social connections and their quality. Social capital was defined by Bourdieu as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance or recognition" (Bourdieu, 1985 p.248). Social capital is a measure of how “linked” one is. It is measurable in a level of “enforceable trust” among one’s social network, the degree to which members of a social network are willing to allow one to profit from that relationship. Where cultural resources are necessary for meeting the “conditions of entry” to networks, social resources are more discernable in how people behave after they have gained access to networks.

The classic finding on the importance of social resources is by Mark Granovetter (1973), who found that people with a large number of “weak ties” (acquaintance relationships) are able to exploit these links for the purposes of economic advancement. These “weak ties” are more important than “strong ties” because they tend to be “bridging ties” that link into networks outside one’s own. “People you don't know very well are probably moving in circles that are different from your own and, therefore, less likely to have the same information as you do. The people you know well, on the other hand, know the same people as you do and, thus, have the same information” (Granovetter, 1974 p.38). What Granovetter’s study doesn’t explain is how people come to gain these acquaintance relationships. While there is widespread agreement that an expanded social network (many social resources) is characteristic of high-status people, the theoretical models of how this comes to be have yet to be extensively elaborated (Davern, 1999). In the following section, I suggest that an understanding of the role of culture is important in seeing how social networks form, and thus how economic markets are structured.

“A world turned upside down” – culture in the economy

The forms of resources outlined above would not be controversial to most social theorists. They closely equate to Bourdieu’s distinction between social, cultural, and economic capital. However, I argue that the processes I have outlined to date suggest an *inversion* of relationships of determination between these resources as they are usually accepted in classical Marxist theory (and Bourdieu’s work). Rather than economic capital determining social structure in “the last instance,” I suggest that *cultural resources become ‘codified’ in a network of social relationships as social resources.* Under conditions of informational capitalism are converted into economic resources (as exemplified by Granovetter). [See Fig 1].

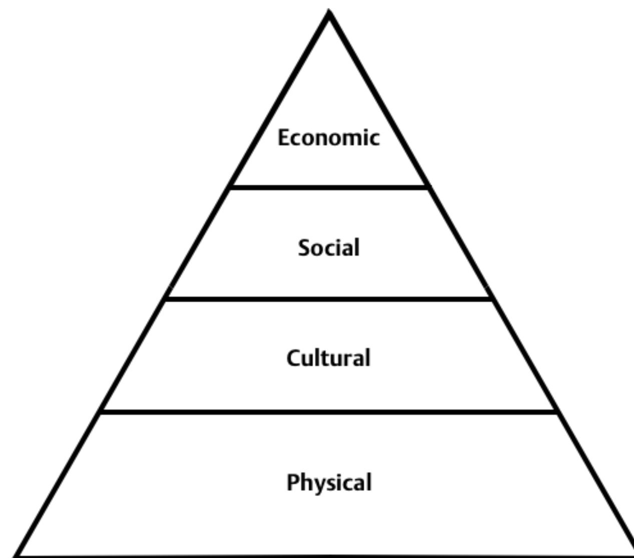

Figure 1 – The Four Kinds of Resources

At the theoretical level, a number of things follow that begin to constitute something like a research agenda:

i) Current conditions suggest a financial "superstructure" that is largely determined by a cultural/informational "base";

ii) The increased attention to culture, social networks and information in the economy provides the opportunity for a theoretical synthesis of socio-cultural analysis of the economy and the economic analysis of the culture industries;

iii) A resolutely cultural approach to socio-economic issues of the type I suggest provides an opportunity to reconstitute a research agenda for linking culture and socio-economic inequality while responding to recent trends in culturally-specific political activism.

Such an inversion, ironically, finds more antecedents in the economics literature than in the cultural studies literature surveyed in Chapter Two. In "old institutionalist" economic analysis, markets were always seen as being embedded in cultural situations and subject to core processes. The neo-classical move to position self-contained economic actors as external to culture, emerging "fully formed, with preferences fully developed" (J. Nelson, 1993 p.292) is a more recent phenomenon coextensive with the dominance of Western individualist ideologies.

While even economic sociologists such as Granovetter (1985) have been reluctant to consider a cultural base to economic activity, a move is well underway in many areas of social theory to consider culture more fully. Kate Nash, in her survey of the 'cultural

turn' in social theory, notes that there are two aspects of the case for the cultural construction of economic activity.

> Firstly, the idea that culture is universally constitutive of social relations and identities. I shall refer to this as the 'epistemological' case for culture. Secondly, the claim that in contemporary society culture plays an unprecedented role in constituting social relations and identities. I shall call this the 'historical' case for culture. Where the epistemological case is based on theoretical considerations, the historical case is empirical, concerning historical changes in social life. In practice, however, these claims overlap in the application of the 'cultural turn' to studies of contemporary social life. (Nash, 2001 p.77)

The momentum behind both cases is growing, and we now have both the theoretical apparatuses and the interdisciplinary environment that can explore the cultural construction of markets in more detail. As Nash notes, the structuration theory of Anthony Giddens (1984) draws from ethnomethodology to outline the processes that make culture constitutive of identities and social relations, even though Giddens rarely uses the term 'cultural' to describe his work. Lyn Spillman (1999) provides an excellent overview of the opportunities for the cultural analysis of markets. Spillman identifies three important aspects of markets that have cultural dimensions.

Firstly, the objects of market exchange are culturally constructed. The products that can be legitimately traded vary culturally and historically. "In contemporary Western societies, we don't question that cows and houses can be sold for profit. But we do question sales of children or body organs" (Spillman, 1999 p.1054). Such questions of commodification are especially prevalent in the highly informational, aestheticised products that increasingly dominate economic activity. We see the effects of these questions in contests over intellectual property and the use of pop music; whether domestic labour should be paid; or even the commodification of sport and access to spectatorship.

Secondly, the parties to market exchange (potential trading partners) are also culturally constructed. Markets are perhaps analogous to Benedict Anderson's (1983) idea of nations as "imagined communities", and subject to similar symbolic boundaries and processes of inclusion and exclusion. For example, cultural perceptions around property ownership by foreign nationals may significantly impact how buyers and sellers operate in real estate markets.

Finally, the norms or rules of market exchange also have a significant cultural component that Spillman suggests is highlighted by three bodies of work. The first

emphasises the cultural and political constitution of state/market relations that have an inordinate effect on how exchanges work. The second identifies the importance of identity-claims and non-strategic motivations in the sale of goods (e.g. through the role of advertising and the overall commodification of identity). The third highlights the culturally diverse nature of the meaning of money itself. Overall, market transactions take place according to what DiMaggio (1990 p.117) calls "normative scripts", which define "what one can exchange, with whom, and how one should go about it." The result, according to Spillman, is that market exchanges have a much richer symbolic repertoire than is usually imagined.

Reviewing the literature in economics and sociology, dialogues around the role of culture are expanding rapidly. I argue, following Spillman, that the central role of culture is becoming firmly established, and that almost every case study in the economic sociology literature provides some evidence for this, even if many researchers in this field do not share such a position. I turn now to considering the implications of this argument for broader tradition of social theory discussed in Chapter Two.

The political implications of the cultural base

In placing culture at the "base" of reproduction I am attempting to fundamentally shift recent work on struggles in the cultural arena – which have generally tended not to engage directly with problems of economic structure – to a central position in economic analysis. For too long the work of cultural activism has been seen as a distraction from the "real politics" of demystifying capital accumulation. Some of the classic work in Cultural Studies has seemed afraid to dispense with the "economic base" argument, as the only alternative appeared to be a "relativist" position which "celebrated consumption" and trivialised economic inequality.

This particular binary opposition, which dominates late Marxist dialogue around postmodernism, appears to me to be a hangover from a methodological approach that sought to find "objective" social laws and conditions that structure "society". Rather than a detailed theoretical argument, I think the easiest way to illuminate this assertion is empirically: the terms of reference for the Marxist discussion of culture in the academy have remained overwhelmingly within a discussion of white male European theory (Frederic Jameson, Perry Anderson, Jean Baudrillard, Michel Foucault, etc.), whereas the work that *precipitated* the crisis of Western theoretical perspectives often articulated feminist or anti-colonial concerns from non-Western perspectives. Rather than taking seriously the implications of those concerns (which a fully Marxist dialectical perspective would require), a large body of Western theory made a defensive

retreat into more narrowly defined political programmes that sought ever harder to find the "real" economic base in a protean multinational capitalism. Ironically, in for example Jameson's case, this has resulted in alienation from significant theoretical dialogues taking place in institutions he helped establish, such as the journal *Social Text*. As two editors of that journal recently pointed out,

> Early cultural studies was in many ways an attempt to come to terms with certain problems and blind spots in the Marxist tradition, and indeed to historicize Marxism itself. In practicing a study "from below" of cultural forms and circuits, this work strove in particular to flesh out a complex and critical understanding of the people — that is, the subject of history, that rational motor of world-historical transformation that was too often taken for granted in traditional Marxist discourse. (Edwards & Martin, 2002 p.2)

Cultural Studies, then, particularly through the integration of racial and feminist concerns, provided Marxism with a means to "dialogue with its own difference". The lesson to be learned from the work of publishing collectives like Social Text is that Marxism must give up its claim to represent "a totality" if it is to provide productive articulations with the "new social movements" in ecology, peace, ethnicity, gender and sexuality that primarily identify outside Marxist thought's categories.

That such movements are now the most active fields of political struggle is now no longer questionable, and the literature on them is growing rapidly (see e.g. Giugni, McAdam, & Tilly, 1999 for a summary). Representatives of those truly on the receiving end of capitalist domination (women, indentured labour, indigenous peoples – Salleh's "meta-industrial class") who have been exploited through the expansion of a value system not of their own making, are now "writing back". The question for Western theoreticians is how to respond to this work. If our response is merely accommodating, or to assimilate these responses in a defined "cultural" space that remains peripheral to the "objective" base that we have identified, then we fail to make full use of these efforts for revising our theoretical labour effectively. Instead, a more fully dialectical approach might ask the question of what it might mean to view *our* concerns from *their* perspective. If we don't at least consider this strategy, we are engaged in the "false consciousness" argument, where others are seen as being somehow blinded to the true underlying base of their exploitation that only we can see.

If we begin with the meta-industrial class' experiences as a *starting point*, cultural analysis is in no danger of failing to critique capitalist exploitation, a common criticism levelled at postmodern theory. The tradition of cultural studies from the Third World has been resolute in its integration of economic issues into cultural analysis (Spivak,

1988). To take an example, the demands for cultural self-determination by indigenous sovereignty movements are more than merely "cultural", as they *include* material resources as a structuring factor of what constitutes culture (Durie, 1998).

Since structuralism and cultural studies, we are used to treating culture materially, as something subject to the logic of historical power relationships in much the same way as finance capital. But the challenge from non-European theoreticians asks us, having historicised culture, to acknowledge the cultural specificity of our whole economic and historical framework, and to be prepared to allow our methodologies to be altered through these dialogues. In other words, we must see our idea of "the economy" as a cultural form. By placing culture at the base we allow that cultural difference might exclude us from fully understanding the logics of the economy in particular situations, and allows the possibility that our cultural location may place us in fundamental political conflict with others despite our best intentions. It also suggests, in a Marxian dialectic, that the knowledge about the true impact of multinational capitalism is found in the margins.

Class relationships: how resources can determine alliances

Narratives of class tend to focus on two dimensions: class composition and class dynamics (Therborn, 2000). The first is concerned with describing how things are, and useful ways of defining shared locations between subjects. The second is concerned with how those classes interact: how these class positions are reproduced, the ways in which unequal opportunities are reproduced, particularly through exploitation and domination. A theme through my analysis of class is that inordinate attention has been paid to increasingly complex descriptions of class positions that reflect emerging (or declining!) forms of class-consciousness. The ability to "reflect reality" and achieve empirical verification comes at the expense of convincing narratives around how these real socio-economic opportunities are being produced. This phenomenon reaches its apotheosis in arguments such as those of Grusky (2001), who claims that class needs to be decomposed to the level of occupation, because this is the predominant sense of "class consciousness" shown by the contemporary worker. The question of how these "more accurate" occupational groupings are useful in theorising inequality receives no attention at all!

My aim in producing a class narrative for the contemporary environment is only strategically concerned with empirical "validation", particularly in relation to class-consciousness. My contention is that the debates over class schema and the empirical projects seeking to validate them constitute a serious distraction from the power

relationships emerging under informationalised, transnational capital that I surveyed in the last chapter. If identity is increasingly fragmented and individualised, as much contemporary sociology suggests, the attempt to successfully renovate the "empty boxes" of class position to accord with class-consciousness is likely to be futile.

The post-structural "break" has seriously questioned our ability to divide the world into boxes that fit together to create "society as a whole". The desire to formulate global systems is especially problematic for theorists in highly developed colonial cultures, as our institutional location intrinsically hides from us the external effects of many reproductive processes in which we are engaged. If four decades of intensive theory on identity has taught us anything, it is that the power to name and label subjects is itself one of the main areas of political struggle, and totalising social analysis from the privileged location of the West is coming to the end of its term as the ruling party.

However, this conception of fragmented class-consciousness and identity-based political struggle does not preclude collective action. The recent activity of new social movements highlights this form of 'affiliative politics', where diverse groups work together for a political aim. According to Haraway (1985), this is emblematic of political struggles within technoculture: human "subjects" are impure, but they collectively identify shared struggles against common conditions of oppression (see also Sandoval, 2000). Mouffe (1988) suggests that such *solidarity* can be developed through establishing a chain of equivalences between different struggles for democratic representation. However, the nature of the collectivity lies not in the subjects or their conditions, but in their struggle. That is to say, the self-identity of actors in struggles cannot be known, even through the most extensive survey techniques. This thwarts our desire to fix the origins of class struggle in the consciousness or identity of the participants. Instead, theorists such as Haraway and Mouffe suggest turning attention to the dynamics and processes of collective action.

Processes of struggle

I argue that to produce a useful analytical framework for these processes we need to identify *shared positions in struggles for control of informational resources.*

There are three aspects here to be considered together:

1) *Shared positions.* In what is broadly termed the postmodern era, social theory has been characterised by fragmentation and decomposition of social structures that were once held to be universal among social sciences in the West (see e.g. Connell, 1977). As I outlined in Chapter Two, this process is not reversible. But an analytic

framework which is widely applicable, and which draws upon the history of class, must develop plausible collectivities, or we are left with the incommensurable difference of particular situations. The challenge is to identify these while taking seriously the questions raised by the theoretical work emphasising difference and located knowledge.

2) *Struggles for control.* As outlined in the introduction, the distinguishing feature of my approach – and what places it in a self-consciously Marxist tradition – is in the emphasis on struggles for control. I choose this focus in preference to discussions of "access" "use", or "production" for two reasons:

    Firstly, gaining control implies gaining the power to set the agenda for access to and use of information and ICTs. Access to or use of ICTs cannot necessarily be seen as a net benefit if what constitutes "access" and "effective use" is determined by someone else. Or to put it another way, if a person has control, their use and access compared to others is no longer a problem of inequality, but becomes a choice likely to result in a diverse range of use patterns. As Swift (2000) points out, it seems to make sense to care not about whether people do in fact get an equal share of goods, but whether an equal share is feasible to them.

    Secondly, an investigation of control emphasises the sense in which information and related technologies are *relational*. Information does not just exist, but is used to connect people together. The mechanisms by which this happens are not neutral, they are more or less determined by different actors in these relationships. The question of "who has control" destabilises simplistic comparisons among use patterns, and is unavoidably challenging to established interests. The question of control disrupts complacency around our attempts at change.

3) *Informational resources.* As discussed in the previous chapter, all evidence points toward information playing an increasingly significant role in socio-economic reproduction. Not only do increasing sectors of the economy consist solely of information, but – as seen with Shaw's study of the steel industry from Chapter Three – interfaces to material production are also being rapidly informationalised. I will try and account for both roles for information in considering the nature of these resources.

I use the term "resources" here (as distinct from "capital") to emphasise that the value of these resources is not only in their productive use, but are also crucial in consumption. While from Marx's perspective "circulation, or the exchange of

commodities, creates no value" (Marx et al., 1992 [1845] p.226), information is distinctive in the way that its value is highly situation-specific. Therefore, consumption can transform the value inherent in commodities, and the terminology of "capital" perhaps hides this transformative nature of informational goods through the process of consumption.

In the above framework for classifying resources, I suggest that these resources are not stable through time and space, and a "class position" cannot be read off a human subject's "possession" of these resources. The resources are only determined through qualitative relationships to others. That is, one does not have a social capital rating of, say, 68 out of 100, but can have more or less resources available as they are valued in that particular situation. However, little attention has been given to discussing the interaction between these resources as they are deployed in particular situations. I argue that in specific situations actors draw upon these resources for particular purposes. While the way these resources are used shifts over time, analysis of these purposes reveals political solidarities that identify "shared positions in struggles for control of informational resources."

In following this line I'm drawing upon the work of Lyn Spillman (1995) in her assertion of the relationship between culture and social structures. Spillman notes that, following Bourdieu, social forms tend to structure fields rather than actual behaviour or culture, i.e. they define limits of possibility within which relatively autonomous cultural activities take place, rather than determining the actual processes as an Althusserian response might hold. Similarly I argue that in any given system under analysis, subjects can be seen to be in a field of informational relationships that constitute relations of power, domination, and exploitation: struggles for control over the four types of resources listed above. In the case of social and cultural resources, which are generally not thought of as material, these struggles often take place over the *value* placed on particular forms of information, knowledge and relationships under exchange.

Rather than talk about fields, following Wittel (2001) I term these spaces *networks*. This reflects the social and connected nature of what are usually thought of abstractly as markets, or social fields. As Rossiter (2004) puts it, "Networks are uneven, heterogeneous passages and combinations of communication in and through which translation is intrinsic to the connectivity of information as it encounters technical, social, political, economic and cultural fields of articulation, negotiation and transference." Networks, in my use, include markets and non-market social interactions.

There are three kinds of struggles for control in networks that I separate analytically.

Access to networks

There are always contests over who gets to participate in certain networks, whether they are economic markets, social groups, or professional communities. While economic theory tends to construct competition as a norm of the 'free market', with monopolies generally representative of 'market failure', much of the empirical literature suggests that markets rarely approximate this theoretical ideal. Those in positions of power are routinely engaged in seeking 'closure' to prevent others from gaining access to particular networks. As Mark Granovetter points out (Granovetter, 1995), access to business transactions is less shaped by capability than participation in particular social networks. For descriptions of social closure, see Weber (1968), and elaboration by Sørensen (2000b).

Cultural norms of networks

It is rapidly becoming commonplace to assume that the real action in business markets or professional networks happens in informal settings (e.g. the golf club), leading to a vast literature on "professional networking" (Agre, 2003 contains a good list of references). One may have access to a formal network and be equal under its rules but outside where significant decisions are being made. A common quote in the business literature attributed to Sun Tzu suggests that "All battles are won before they are fought". He never actually said that in *The Art of War*, but it nevertheless exemplifies this common awareness of the importance of decisions made in an informal context (see again Portes et al., 1989).

Formal rules and protocols of networks

Every network has formal rules and protocols of exchange – what can and can't be exchanged, pricing, who gets to speak first, and so on. The importance of these rules is rapidly becoming established in the economics literature (see for example the discussion of Cosean externalities in Mankiw, 1997). Participants in a network struggle over the maintenance or change of these formal rules. For example, Third World agricultural producers in "Free Trade Alliances" may not have control over protectionist tariffs set by First World policy-makers in that market, for economic reasons (their financial clout is low) or cultural reasons (they cannot make a case within the rule system for their needs due to lack of information). Their ability to change this may lie in voting, lobbying, or other processes. See (Hunter, 2003) for an excellent overview of current issues and shared agendas in relation to the World Trade Organisation.

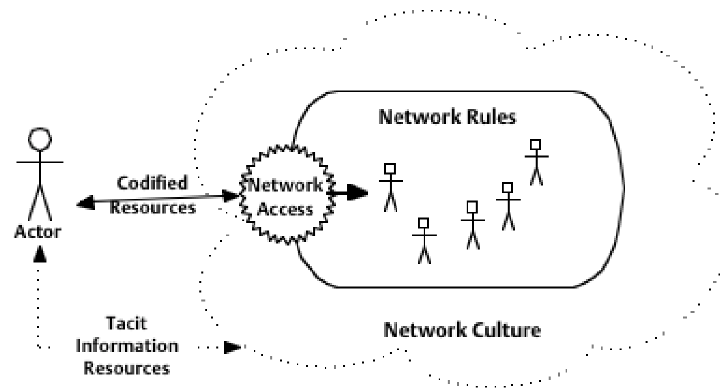

Figure 2 – The three dimensions of struggle in networks

Collectivities and processes

So we have a) four kinds of resources, or ways of assessing relative power; and b) three ways that power affects the functioning of networks. What next? My argument is that by using these terms in analysis of specific situations, we can understand through (a) *where* imbalances in power lie and through (b) the *processes* through which different groups may have collective interests.

Let's take an example of an online market that links employers with staff. There are many such markets (job sites or "boards") that attempt to broaden the distribution of information about employment opportunities and workers, to theoretically better approximate a labour market that operates according to neo-classical theory. The matrix below outlines some of the issues identified by the interplay of resources and processes in this analytical framework in this example.

	Physical Resources	Cultural Resources	Social Resources	Economic Resources
Network Rules		Ability to appear credible to network organizers when reporting e.g. abuse	Ability to exert pressure on rules of network exchange (through organising collective action)	Network will rely on revenue for operation and rules will reflect interests of main revenue providers.
Network Culture		Understanding of informal requirements of employers (attitude, presentation etc.)	Social network to share opportunities, experiences and problems	Ability to afford education / information about employment issues
Network Access	Physical ability to type and view screen	Literacy	Support for problems in computer use	Computer ownership

N.B. any particular example might not fill every box on the grid depending on the situation. For example, there can be physical barriers to entering the struggles over cultural norms of markets even though that is not the case in this situation. For example, a person missing an arm may have trouble joining the pre-board meeting round of golf, even if they are otherwise socially and culturally well positioned to participate in such informal exchanges.

FIGURE 3 – EXAMPLE OF THE RELATIONSHIP BETWEEN RESOURCES AND PROCESSES

Note that particular kinds of alliances can be identified around this framework: those who are unable to access the employment market for physical reasons have a potential ally in those who does not have the social or economic connections to gain access. The question remains, though, how these groups and collectivities find each other and gain consciousness of their shared positions.

I suggest that the role of intellectuals as described by Gramsci can be usefully invoked here. It becomes the role of "organic intellectuals", those who are connected to particular processes and struggles, who have the power to foster this consciousness:

> Every social group, coming into existence on the original terrain of an essential function in the world of economic production, creates together with itself, organically, one or more strata of intellectuals which give it homogeneity and an awareness of its own function not only in the economic but also in the social and political fields. (Gramsci, 1971 p.5)

If these organic intellectuals already exist, and presumably are working on behalf of their interests, then it may be asked what the need for a larger framework is.

I am suggesting here that this framework is useful as a meta-language, a way of connecting the "network of networks" (Castells, 1996). It can function as a protocol (like, say, XML), that can assist articulations to be made between different situations and different networks, without placing undue constraints on the *actual phenomena* under analysis. However, this framework is not value-neutral. As I mention above, what puts it in a tradition of theorising inequality is its focus on i) shared positions (i.e. class-like groups) ii) struggles for control (relations of power). It is also informed by struggles in contemporary social movements, and is explicitly designed to be useful for those working on those issues of political change. It responds to the differentiated and connected nature of various political struggles without attempting to collapse them.

I contend that the questions that emerge from this framework are not just "different" to those usually asked in the literature on socio-economic inequality in the new media environment, but offer a stronger framework with which to analyse and promote change. A network economy requires a network social theory, but too much of the network theorising reviewed in this thesis has tended to embed the cultural assumptions of European social theory into its global system. This attempt to build a framework accountable to the "meta-industrial classes" will surely echo some of these faults, but my hope is that it provides useful directions for those seeking to revitalise this tradition.