

Informal learning and school systems: an ecological history of anxiety, opportunity and regulation

Julian Sefton-Green

Paper presented at the *Place, space, text* Seminar Series, December 3, 2007.
Centre for Literacy, Policy and Learning Cultures, University of South Australia,
Adelaide.

Introduction

The aim of this paper is to reflect on the emergence, use and popularity of the concept of 'informal learning' over the last 15-20 years in discourses about children, youth, learning, schooling and above all the politics and policy of education. Although my main sources are drawn from an English context, I think that the argument I am engaging with has an international salience across the developed world: and as studies like that by my colleague Helen Nixon (Nixon, 1998) or work by Jane Kenway (Kenway & Bullen, 2001) show, the Australian context is a key part of part of global changes affecting education systems across the world.

My own interest in informal learning perhaps developed out of my work as a Media Studies teacher 15/20 years ago exploring the knowledge of TV shows, Film genres and musical forms demonstrated by young people through their out-of-school learning experiences and trying to work out what added value an academic discipline like media Studies could offer these young people – given that they could show such sophisticated and complex understanding of the Media learnt simply through the normal processes of cultural consumption (Buckingham & Sefton-Green, 1994). Since that time, I suggest there has been a growth of interest in ideas of informal learning in tandem with the penetration of what was then the 'new' digital technologies into the home and into Schools. Recently it has been the informal home use of computer games which has attracted most interest and I would draw your attention to the work of the MacArthur Foundation in the US through its huge Digital Media and Learning programme¹ exemplifying current focus on this theme. I shall return later to the interrelationship of market growth and policy shift because this is only one of theories I have come up with to begin to explain an almost historical shift of interest in this field.

There is no way that anybody could really seek to explain why terms like informal leaning may become more and more common in educational discourse over certain periods of time. Sometimes the explanations are cultural, sometimes its almost a question of fashion (Alexander, 2001). My interest in informal learning is basically a form of shadow boxing: for me it represent a kind of 'other' a dialogic echo and alternative voice as it engages in a theoretical dance with anxiety about the role and purpose of State education. This notion of engaging with 'the other' informs the structure of this presentation. I will begin by exemplifying studies of informal learning and then attempt to characterise the concept tracing its implicit relationship with anxiety about learning in

¹ <http://digitallearning.macfound.org/site/c.enJLKQNIFiG/b.2029199/k.BFC9/Home.htm>

schools. This includes the way informal learning has been used to offer alternatives to schooling via technology and will be discussed in terms of whether the concept offers a retreat from or an amelioration of, schooling. I shall draw parallels here with the ambition and impact of New Literacy Studies and consider how research into informal learning might position itself in relation to knowing about education in the broadest sense before speculating about a 'regulation' model of the relationship between schooling and informal learning - as a way of reviewing learning as an ecological 'whole-system'.

A key thrust of the work I engaged with in Media Studies in School was to find ways of validating the agency of young, socially excluded, minority youth. Many of the ideas behind early attempts to rationalise forms of media literacy derived from the Birmingham Centre for Cultural Studies and their work on sub-cultures. Examples of study of youth resistance paid attention to various kinds of semiotic work, all attributing agency and power to social groups hitherto imagined more as the objects of policy and sociological study (e.g. Hebdige, 1979; Jefferson & Hall, 2006). The media education tradition was similarly motivated - trying to show how what usually passed for ignorance and lack of culture was in fact coherent, intellectual and intelligent - that consuming forms of popular culture created meaning and in that sense gave power to the consumer. This attempt to re-situate agency lies behind many of the views of informal learning and I mention this point here because I want to remain properly sceptical about attempts to re-attribute power and agency. One question posed by the discussion of informal learning is in whose interests does such a formulation work? To what ends? These political questions underpin my enquiry.

Examples of Informal Learning

In order to give some concrete focus to what is quite an abstract paper I will reprise two examples from my own work – not because they are particularly original but because they illustrate the range of and scope of the analytic field; and as I would now argue, point to some of the limitations inherent in the strategic aspirations about the uses of informal learning.

My first example comes from a study I co-authored in 2004, (O'Hear & Sefton-Green, 2004). This is case study of a young man (Tom, aged 14 at the time) and describes how his leisure -time enthusiasm for a particular band, 'Interpol' transferred into his participation on an online web-site, and thence to his growth and development as a young artist. We described Tom's online interactions on the forum, or bulletin board, dedicated to the band - on a site initially set up by the recording company - and showed how one strand of the bulletin board became, through user pressure, dedicated to artwork about or for the band. Tom became a lead member in this online community, and in stark contrast to his experiences of formal schooling engaged in a series of interactions with other groups members. We offered a detailed study of how his semi-anonymous participation led to peer critiques (of his art work) and a real sense of engaging with critical support groups. We analysed how Tom used his experience (looking at a succession of images he worked on and through reflective interviews) as a

way of finding and relating to an audience for his work and how he developed a position within the social network of the forum: and finally how he could use hobby-style activities as a way of progressing his art work – which he thought at the time, led directly to his getting into art school. We were interested in how the structural features of the forum, (both social and technological) supported Tom's growth as a young artist and how social experiences like these offer a different model of a 'learning community' – a model, we suggested, which has profound implications for education and the creative industries.

The chapter was clearly interested in the nature of the learning underpinning all of these transactions and we itemised the uses of anonymous identity, the construction of a learner identity, the directness and focus on the critical discussion and the agency afforded to a young man who wouldn't usually be as confident in acting in this way. These features were all important because of the way they offered forms of supplement to Tom's characterisation of his failure of his mainstream formal learning experiences. Of course, much of the learning interactions taking place were not informal at all: especially the way that Tom learnt from critiques provided by the board's moderator and accepted 'guru'. However, the learning was voluntary and took place in relation to the space of youth culture which is not normally assumed to be educational.

Being able to analyse how and why learning takes place in sites that aren't usually conceptualised as such, is important. It suggests number of policy shifts, mainly in terms of focusing on what people know and do, rather than most educational policy which tends to be oriented towards service provision. Here we can see how the idea of informal learning works in concert with changing models of the education market – in that such studies suggest a more demand driven rather than supply focused approach. They also show how part of the value of this sort of study to challenge assumptions about learning perhaps more than to re-invent new kinds of learning in the first place.

The same problems of delineating the boundaries between informal and formal modes of learning, and formal and informal forms of knowledge disciplines runs through my second example. This study tried to log my then 6 year olds' engagement with Pokemon as he learnt to play the game boy version of the game and became absorbed in Pokemon culture (Sefton-Green, 2004a). In the face of considerable public opprobrium (especially by schools across the UK) the study argued that that engaging in Pokemon was a profoundly complicated learning experience. Indeed the more the study described how the child modelled himself as a learner, how he absorbed information, how he deployed, reflected on and calculated on the ins and outs of Pokemon, and indeed how he learnt to engage with new media forms, to transfer understanding across modalities, the more strange it seemed that such processes were proscribed by schools. Indeed the reception of Pokemon at that time (2000) exemplified all the classic features of a moral panic.

The study showed now the child's uses of trial and error was 'disciplined' through iterative and recursive experiences into a more 'scientific' process of enquiry and game-strategy, and how his entry into formal literacy (reading and writing) and numeracy was not only co-terminus with these experiences but complemented and supported skills in both the game and the school domain. It also showed how a range of cross media

experiences (playing the game across a range of media platforms in what Ito calls the contemporary 'media-mix' (Ito, 2005), developed a range of other literacy competencies (reading maps, icons and interpreting story and narrative genres) in ways that clearly support and embed the acquisition of formal literacies.

In many ways I suggested that these experiences paradoxically construct the child as a 'pedagogic subject' (Bernstein, 2000) in more effective ways than schooling. Pokemon itself uses several pedagogic strategies which mimic forms of schooling, like rote learning and forms of testing. Despite being in a domain excluded from formal schooling and being totally commercially driven, experiences in the game, learnt informally had resonance for the child's formal learning in ways that *de facto* put the formal and informal domains into a kind of market competition. And, yet of course the knowledge of Pokemon is entirely fictitious and only has meaning within its game parameters.

Defining Informal Learning

One of the earliest academic attempts to theorise informal learning beyond simply asserting its value, is the 1973 paper by Scribner and Cole. This begins a tradition of work in the socio-cultural tradition and makes a clear case.

Our thesis is that school represents a specialized site of educational experiences which are discontinuous from those encountered in everyday life and that it requires and proposes ways of learning and thinking which often run counter to those nurtured in practical daily activities. In making this argument we will we will accentuate the contrasting features of school learning and everyday learning, although, in fact, the two are constantly intermingled. (Scribner & Cole, 1973:553).

In what now seems a prescient move, Scribner and Cole started from the assumption that most research on learning derived from non-socio-cultural approaches looking at school based systems of learning and argued that if we just accept the fact that the social organisation of learning differs from site to site, then learning occurring in the non-formal domain is crucially important. This approach opened the door to a huge range of research of which language learning and literacy acquisition is the most prominent example (see (Baynham, 2004) for an introduction to this tradition). Implicitly that work explored the complexity, the structured nature and the embedded social nature of informal learning, although learning language or literacy was the object of this study rather than the notion of informal learning in its own right. The more ethnographic and anthropological accounts of literacy and language acquisition also invited the study of informal learning as in some ways an adventure into the unknown.

Although right from the beginning scholars in the socio-cultural tradition accepted that they had to over-exaggerate the differences between both domains, (formal and informal), and that features of both kinds of processes could be found in both domains, this tradition has spawned a huge range of learning and social theory, in particular leading, to the theories of learning as participation, associated with Lave and Wenger,

(Lave & Wenger, 1991) which have become especially useful in characterising the values of communities of learners in the digital age – and which I used in the examples described above.

Once it had become accepted that informal learning could be theorised in this way, that it offered a legitimate object for study, the key (and oft repeated question) becomes how we distinguish between formal and informal learning. Scribner and Cole focus on the social organisation of knowledge. In doing so, they also touch on the idea, (followed up by later scholars), that debates about the nature of learning via this informal route is indistinguishable from the politics of education.

Because schools occupy such a central role in the organisation, transmission, and regulation of knowledge and accepted forms of pedagogy it is obvious that a discussion about informal learning becomes more than simply a disinterested account of socio-cultural (or even cognitive processes). The critique of schooling as social reproduction, the analysis of the status of knowledge developed by Bernstein, (Bernstein, 1990) and the power of pedagogy developed by Bourdieu, (Bourdieu & Passeron, 1990) are all examples of how discussion about the nature of formal learning becomes a discussion about power in society. In other words, socio-cultural discussion cannot separate claims for the impact and significance of school learning from notions of how individuals are subjected to, identify with and 'behave' according to its processes: and this affects the nature of the claims that can or are made for informal learning. In particular it become very difficult to isolate pure cognitive claims for informal learning if the socio-cultural approach aims to explore how context constructs the nature of the learning process. Most writers and researchers are sensitive to this problem and in fact have circled round this problem of the distinctiveness of informal learning from formal learning. Implicitly and explicitly, then, discussion of informal learning thus become a lens through which to interrogate some of these political questions about formal learning and schools.

There is now a substantial literature about informal learning: (see the collection (Bekerman, Burbules, Keller, & Silberman-Keller, 2005) and much of it does try to distinguish the unique and distinguishing characteristics of informal learning as a distinct mode. Although it is also true that many writers do not at the end of the day generally hold onto extremely hard and fast distinctions between informal and formal learning – or between modes of and learning in general. In general, we should also note, much of the recent study of informal learning derives from workplace studies and/or cultural anthropology and does not focus on young people – as such studies tend to assume schooling the common basis for learning. Taking these caveats into consideration, the literature on informal learning can be broken down along the following key axes

1. Location. Where the learning takes place is key: how and if, setting is a determinant of processes
2. Processes. How the learning is structured and organised, whether there are forms of accreditation and assessment: what kind of or style or pedagogic relationship and structure is used. How the learning is supported and directed: whether it is collective, collaborative or individual

3. Purposes. Why the leaning occurs, in whose interests and under what conditions.
4. Content – whether the knowledge or processes have disciplinary provenance, how it is applied in practice and in theoretical terms.

See Colley *et al.*, (2003) for an extended and more detailed taxonomy.

In very general terms all of these elements underpin all attempts to characterise and describe formal and informal learning

These theoretical models are also part of the histories of the usage of the concept. Colley *et al.*, (2003) identify key moments of institutional practice and I want to outline these very generally to complete my framing of the discourse.

Prior to the 1970's saw the incorporation of informal networks and the growth of state sponsorship for bottom-up initiatives. It also saw the growth of youth clubs and adult education programmes – especially in the emerging nation states of the post-colonial world. Secondly, and post the 1970's there was a move to validate and describe kinds of informal learning in ways that couldn't be incorporated by the disciplinary organisation of knowledge represented by the formal education system. This was in response to variety of theoretical challenges to academic conventions. Thirdly in the 1980's Colley *et al.*, (2003) argue that we can see the processes of recuperation whereby non formal education was brought into under the State's changing remit, by changing forms of assessment and validation as well as changing control of funding for voluntary and non-institutional education systems

The final era, it is suggested, can be characterised by a re-evaluation of current non-formal learning. Informal learning and the non-formal education² sector have become much more visible in policy and focus particularly on strategies to promote social cohesion and economic competitiveness. In the UK, research convened by Coffield (Coffield, 2000a; Coffield, 2000b; Coffield, 2000c) re-invigorated debate around the use of these terms by situating them in the context of 'lifelong learning' arguing that that current labour market training policy was focusing on informal learning as a way of re-positioning the learning subject within the changing needs of post-industrialisation – creating the conditions for a new type of skilled worker.

I would add to this characterisation by suggesting that current attention to the role of digital media and commercial culture in young people's lives is being constructed by the same criteria. That for some, the educational colonisation of the spaces of commercial media culture (as in my description of the Pokemon work) offer a form of 'Educational' recuperation of what has been often regarded as 'dangerous pleasures' - although the mainstream rejection of media culture as an educational site means this remains a contentious strategy.

In summary, this brief review of the definition, history and uses of the idea of informal learning exhibits two key themes:

² See (Sefton-Green, 2006a) for a definition and description of the non-formal learning sector (in distinction to ideas of informal learning).

1. That there is a history of the processes of recuperation – that is, how kinds of informal learning which started outside of schools and state funded education have developed in respect to each other.
2. The increasing visibility of informal learning as a part of the rhetoric around learning strategies and in particular, how the moves towards an interest in the knowledge economy as part of neo-liberal economic governance have continued to emphasise types of informal learning as a key component of this shift

Informal Learning and ICT

There is no doubt that intertwined with the current re-evaluation of informal learning – as suggested in the model put forward by Colley, (Colley et al., 2003) in the previous section, is the fact that access to the resources presumed to be necessary for learning are now more widespread and available. Indeed, the relationship between scarcity of resources and social access runs through this whole discussion, right back to the exclusion experienced by working class autodidacts and the even longer tradition of non-formal education groups working in parallel to the emerging schools system (Rose, 2001) and it is likely that a political economy approach to this subject would prove fruitful. By this I mean that one way of grasping the discussion about the relationship of informal learning to education could be framed in economic terms: that access to learning resources is now not framed as a problem of scarcity. By contrast the early institutions of schooling were very concerned with rationing resources - schools had low teacher/pupil ratios, few books and writing equipment etc. but this has now stopped becoming the determining organisational feature of access to learning. One obvious example of this is how the wider business of education has moved very clearly away from the narrow market of the school into family life and it is clear that pursuing ICT into the home has been a key feature of this shift (Nixon, 1998: Kenway & Bullen, 2001: Buckingham & Scanlon, 2002).

This approach does not just argue that there has been a shift in market share (from school to home) but a measurable growth of market reach (an overall change of time and resources in learning activities). From this perspective we can see that ICT both constitutes and is constituted by an increased interest in informal learning and we do know that the collision of interests has received a considerable amount of policy attention in the last decade.

There is a critique which argues that the first generation of what we might call 'ICT – isation' into the home deliberately and explicitly used notions of informal learning (amongst others) as part of its strategy to place computers in the home. I don't especially want to concentrate to that now but to draw your attention to Helen Nixon's case study of the discourse around leaning and ICT which accompanied the selling of computer into the home in Australia in the 1990's (Nixon, 1998). That study showed clearly how learning was positioned as a necessary good in the acquisition of ICT in the home and how a national economic strategy – Australia's smart society -was intertwined with this kind of individualised expenditure. Nixon shows very well how ICT was

associated with an 'educational' benefit. The kind of educational benefit she explored was significantly related to achievement in the formal domain – how ICT could be shown to support school based achievement: and to great extent much of the study of informal uses of ICT have been oriented to this argument - to supplement formal learning and/or to offer different opportunities to learn at the learners' own time and pace (for a review see (Sefton-Green, 2004b).

A key component of the argument around the role of ICT in education (formal and informal) is the conjunction with the crisis in public education systems, certainly in the US and the UK and less so in other parts of the developed world. The key text 'The Manufactured Crisis: Myths, Fraud, and the Attack on America's Public Schools' (Berliner & Biddle, 1999), makes the case very clearly that a wave of (at best) misrepresenting and (at worst) concerted attacks on school performance in the public domain undermined public confidence to such a degree that the whole concept of public education was eviscerated to allow for wholesale forms of marketisation and privatisation. Although Berliner and Biddle do not mention ICT especially in this context there is no doubt that that the growth of ICT and its new market reach is a key component of this shift. It is tempting to infer that the disinvestment in public education and the growth of private investment are in some ways related, and that the validation of informal learning in some ways served to legitimise this shift in the allocation of educational resources. This kind of analysis is, of course, difficult to prove.

However, it is well known that ICT has played a key role in broad based educational strategies of UK, Europe and the US over the last 10-15 years. The UKOnline centres (<http://www.ufi.com/ukol/>), the initiatives as part of the Clinton/Gore administration to cross the digital divide are good examples the uses of ICT to increase participation in learning (Warschauer, 2004). There has been a huge spate of ICT based initiatives to remediate the inequalities of social access and to use the advantages of 'own time/own space' learning allegedly offered by ICT as a way of addressing low skilled workers and those who were deemed to have failed (or been failed by) mainstream education. Although this approach to the uses of ICT and informal education is usually taken for granted and seen as a general public good, there is now an emerging body of research which is actually showing that ICT is not quite the solution to the problems of low skilled workforces, and that despite its appeal and its assumed accessibility, it isn't closing the education gap.

Evidence here shows that the persistent policy interest in ICT is leading to a narrowing of provision, that the so called benefits of learning at your own time and in your space can actually lead to closure and conflict with formal education institutions. An over-reliance on ICT as the key way of breaking down barriers mean that people have taken their eye off other social issues relating to participation and continuation in learning by fixating on the technological solution. Finally it has been argued that whatever the pedagogical benefits of learning with ICT, it necessarily does not offer a single, simple solution to successful learning (Selwyn, 2006).

Both Nixon and Selwyn's approaches thus point to the limitations of ICT as a key mechanism to facilitate informal learning for two reasons.

1. They implicitly argue that bandwagon effects – about ICT as the solution to learning - exaggerates claims at the expense of analysis; and
2. They underscore how differentiating between formal and informal learning is an artificial process and that we need to pay attention to the structure of formal learning more than imagining that attention to the informal route resolve challenges already extant within the education system. That informal learning in this context, may be important as a supplement but it cannot replace formal systems.

Constructing Informal Learning in Research and Policy

I will return to this whole question of whether informal learning bears a supplementary, complementary or substitution relationship for formal schooling below but I want to make a small detour in the argument here to speculate about the role of academic knowledge about learning and its place in this debate. A keyword search for the term 'informal learning' in Goggle Scholar showed a rapid increase in citations during the 1990's to about 6000 references per year in the later part of the decade (compared to a total of 21000 references for the preceding 30 years), rising to around 12000 a year in the first half of this decade and tailing slightly back to around 8000 in the last 3 years. Whilst this is a crude indicator of impact and significance it shows that the topic has clearly grown in visibility and interest over the period in line with my previous arguments. Although I couldn't break this down much further most of these references were in the education/computers field.

Although we mainly tend to consider academic pursuits disinterested, we know that this isn't in fact true given the relationship of publications to funded research –itself reflecting political priorities. As is well-known (Giddens, 1991) sociological concepts constitute our grasp of the world and how we conceptualise and orient ourselves within it. Furthermore and less abstractly, academic discourse both informs wider public debate and responds to concerns there in equal measure. Whilst authors like Seymour Papert (Papert, 1993) and even texts like 'Growing Up Digital' (Tapscott, 1999) have had a huge impact on social attitudes in the New Technologies, Children and home learning field, it is of course virtually impossible in a field like this to trace a simple trajectory showing cause and effect.

Jonathon Rose's (Rose, 2001) extraordinary historical archaeology of the reading habits of socially excluded groups, mainly impoverished men and women pays tribute to the spirit of political radicalism behind the waves of working class autodidacts and the self-educated who fought to extend the educational franchise. Indeed I read this work as in some ways a history of the non-formal learning sector describing modalities of self and group learning that precedes our obsession with the digital, yet Rose never really imagines a notion of informal learning in the socio-cultural tradition. For all the radicalism espoused by his history, education and leaning remain a question of dominant definitions. There is no question that the men and worm on in his work would set other

kinds of learning against that of the school or consider other kinds of disciplinary knowledge or ways of learning in any way equivalent with the mainstream.

However, this is the genuinely radical possibility offered by the socio-cultural tradition that we saw above opened up through the work of Scribner and Cole. Here I am not just finding another way to talk about how informal learning relates to socially sanctioned kinds of formal knowledge but reflecting on how the traditions of scholarship investigating the problem contribute to its status and effect. In other words why are we interested as scholars in this field? What purposes does our research serve and how are our findings mobilised in the broader discourses about education and learning in the contemporary policy field?

Much current US based research in the informal learning offered by computer games and the online life exemplifies this challenge *in extremis* (Sefton-Green, 2006b). A concern with the authentic nature of the out-of-school experience (often unproblematically constructed as such) is as much concerned to validate the techno-savvy 'hip-ness' of the researcher as the purveyor of life from the front line. A sense of being 'in' with a youth-focused way of being thus constructs others as being outside the loop and in some way deficient. I am not suggesting that all research this area has no more to offer than the pleasures of the voyeur but I am seeking to challenge claims for newness and difference. There seems to be much of the radical chic behind the formulation of digital natives and digital immigrants (Prensky, 2006) and much at stake in presenting the researcher as a privileged informant mediating impenetrable worlds to the uninitiated.

I suggest that the history of the New Literacy studies movement or tradition is pertinent here. As noted above, work on language acquisition and the study of language use in context were researched and then used in education policy and programme to question simple assumptions about dominant language use. Shirley Brice Heath's 'Ways with Words' (Heath, 1983) is emblematic here as her study of black and white community language uses has seriously challenged commonly held notions of deficit language use and like much of the informal learning debate has shown how non-schooled kinds of learning are nevertheless sophisticated and coherent - perhaps in ways that Rose would not acknowledge.

However the question that really needs investigating is what happens when out-of-school learning collides with that within it and how (or if) transfers of kinds of learning can be shown to occur across domains? Brice Heath's work, for example, has been used to reform the teaching of reading and writing and to help teachers reformulate language acquisition. However Gemma Moss (Moss, 2001) has argued that following Bernstein (Bernstein, 1990; Bernstein, 2000), informal learning cannot be incorporated into formal learning in schools. She argues that informal learning does not demonstrate standard features of learning progression and that some of its effects just can't be 're-contextualised' into formal codes; and that, until this is done, such activity will make no difference to the effects of formal learning.

This may be an extreme example of the problem of trying to reconcile informal and formal learning but it points to ways how research into informal learning can appear to

do no more than validate the work of the marketplace and thus find no point of correspondence with educational change. Moss is talking about kinds of learning about the media and she suggests that there can be no crossover with forms of literacy education because the formal and informal domains are conceptually dissonant. This is absolutely the reverse of the polemical research carried out by Jim Gee (Gee, 2004) into learning through computer game play, or much of the work that is supported by the MacArthur digital media and learning programme which argue that it is only by validating informal learning and /or finding bridges and crossovers that real learning can take place.

If as I have already suggested we could somehow remove other discursive frames from this debate the argument for market growth in ICT's and the perceived crisis in public education, it may be possible to arrive at a more disinterested reckoning of the role and purpose of informal learning

Regulating Tensions: Ecological Paradigms

My conclusion to some of these dilemmas may sound a little reductive but, at this stage, I don't quite know how to make future work more robust.

My first conclusion relates to the principle of what I have called, following Foucault, (Foucault, 1995) intellectual surveillance. In the urge to excavate, colonise, romance, describe and define types of informal knowledge, academics have turned what they find out into a process of surveillance and control. Such control is resisted and negotiated, as you can see in any forum about games playing and learning, but, such knowledge about informal learning will always be recuperated into mainstream educational ideology. Whilst it would be perverse and childish almost, to suggest we should stop researching informal learning and indeed quite contrary to the principles of the socio-cultural paradigm, we have to be aware that the 'will to know' has consequences. Indeed scholars of the 'new spirit of capitalism' Boltanski & Chiapello, (2007) have demonstrated that the contemporary interest in the conceptualisation and operation of networks and allied mental processes of what they call 'connexionism' is a feature of the age. This approach would argue that our interest in informal learning – a classic example of connective thinking, in their terms - is no more than a way for education to develop theories of learning transfer which could underpin the ideologies of late modern capitalism. So can theories of learning ever escape from forms of post-hoc rationalisation of the production of contemporary subjects (people not disciplines), and subjectivity? Is the study of informal learning no more than a way of producing or actively making, modern learners? After all, this analysis would explain the current and recent historical interest in the topic which was my opening question.

On the other hand, this logic would seem to have no escape and subordinates even the actions of academic inquiry to the structuring forces of economic determinism. If current interest in informal learning is a consequence of the invasion of regulation and subordination into the private realm and a means of subjectification, it only becomes a vehicle for empowerment, or for agency as I suggested at the beginning of this talk, in that it offers those who work hard in the informal domain a necessary range of skills and

knowledge to complement the mastery of formal schooling. Indeed, this argument suggests that achievement in the modern era requires complementary success in the informal domain to complement formal qualifications and achievements.

Whilst we have to be honest about this frame I also want to suggest that this structure/agency dichotomy can be re-imagined in ecological terms. Following some of the core values of the research programme outlined by this Centre here in Adelaide, I have thought that thinking of the formal/informal as a 'learning ecology' offers a way of imagining productive tensions without seeing to resolve or over-determine their goals. Just as the balance of mutual reliance within any eco-system is both competitive and supportive at the same time - a unique kind of interdependence – so it might be helpful to think of informal and formal learning co-existing and feeding off each other without either needing to or indeed benefiting from superiority. In this view, rather than worry about the transformations of informal learning through research, we better understand micro-processes by exploring how and where they are employed across domains. So rather than thinking of the formal/informal domains in terms of opposition or indeed in terms of incorporation and recuperation, we need research which imagines the learning that goes on in context-dependent systems, home, family and classrooms, and which can situate them within larger system understandings: and which doesn't seek to overvalue or over-determine schooling as one domain amongst many. In some ways this is simply re-stating the socio-cultural paradigm in that I am suggesting an attention to context – dependent work, but with some important inflections.

Whilst the socio-cultural tradition as I have suggested in relationship to literacy and language learning has been mainly preoccupied in practice with questions of transfer and application, I am suggesting here, that an ecological approach would try not to drive research towards synthesis in quite the same way. We need more to try to preserve points of difference and disjuncture rather focus on commonality and unification. Rather than focus on how styles of informal learning or indeed different and new kinds disciplinary knowledge can be incorporated by the mainstream, we need to encourage a research agenda which can make the case for the intrinsic value of such work. This will pose challenges for funders.

In much the same way as regulation theories in the field of economies underline the ways that competing interests need to be held in balance with forms of control, so I am suggesting that research in this field needs consciously to fight against the push to feed the drive towards the educational-isation of all forms of contemporary social behaviour. For this to happen, I imagine education research would have to be much larger than simply teacher training or classroom enquiry; it could clearly not just be funded by Departments of Education who have sole interests in schools, because we would have to see learning more in terms of its larger social role. I hope this is a project that this Centre can explore in its future programmes.

References

- Alexander, R. (2001). *Culture and Pedagogy*. Blackwell Publishers.
- Baynham, J. (2004). Ethnographies of Literacy; an Introduction. *Language and Education*, 18, 4, 285-290.
- Bekerman, Z., Burbules, N. C., Keller, D. S., & Silberman-Keller, D. (2005). *Learning in Places: The Informal Education Reader (Counterpoints: Studies in the Postmodern Theory of Education)*. Peter Lang Pub Inc.
- Berliner, D. C. & Biddle, B. J. (1999). *Manufactured Crisis: Myths, Fraud, and the Attack on America's Public Schools*. Perseus Books, U.S.
- Bernstein, B. (1990). *Class, Codes and Control: The Structuring of Pedagogic Discourse v. 4 (Class, Codes and Control, Vol 4)*. Routledge, an imprint of Taylor & Francis Books Ltd.
- Bernstein, B. (2000). *Pedagogy, Symbolic Control and Identity (Critical Perspectives)*. Rowman & Littlefield Publishers.
- Boltanski, L. & Chiapello, E. (2007). *The New Spirit of Capitalism*. Verso.
- Bourdieu, P. & Passeron, J.-C. (1990). *Reproduction in Education, Society and Culture (Theory, Culture and Society Series)*. SAGE Publications Ltd.
- Buckingham, D. & Sefton-Green, J. (1994). *Cultural Studies goes to School: Reading and teaching Popular Media*. London: Taylor and Francis.
- Buckingham, D. & Scanlon, M. (2002). *Education, Entertainment and Learning in the Home*. Open University Press.
- Coffield, F. (2000a). *The Necessity of Informal Learning*. The Policy Press.
- Coffield, F. (2000b). *Differing Visions of a Learning Society: Research Findings: v. 1 (ESRC Learning Society S.)*. The Policy Press.
- Coffield, F. (2000c). *Research Findings: Differing Visions of a Learning Society v. 2 (ESRC Learning Society S.)*. The Policy Press.
- Colley, H., Hodkinson, P., & Malcom, J. (2003). Informality and formality in learning: a report for the Learning and Skills Research Centre.
- Foucault. (1995). *Power / Knowledge: Selected Interviews and Other Writings, 1972-77*. Longman.
- Gee, J. P. (2004). *What Video Games Have to Teach Us About Learning and Literacy*. Palgrave Macmillan.
- Giddens, A. (1991). *Modernity and Self-identity: Self and Society in the Late Modern Age*. Polity Press.
- Heath, S. B. (1983). *Ways with Words: Language, Life and Work in Communities and Classrooms (Cambridge Paperback Library)*. Cambridge University Press.
- Hebdige, D. (1979). *Subculture: The Meaning of Style (New Accents)*. Routledge.
- Ito, M. (2005). Technologies of the childhood imagination: Yugioh, media mixes, and everyday cultural production. In J. J. Karaganis, N. (Ed.), *Structures of participation in digital culture*. Durham: Duke University Press.
- Jefferson, T. & Hall, S. (2006). *Resistance Through Rituals (Cultural Studies Birmingham) (Cultural Studies Birmingham)*. Routledge.
- Kenway, J. & Bullen, E. (2001). *Consuming Children: Education - Entertainment - Advertising*. Open University Press.

- Lave, J. & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation (Learning in Doing: Social, Cognitive & Computational Perspectives)*. Cambridge University Press.
- Moss, G. (2001). On Literacy and the Social Organisation of Knowledge Inside and Outside School. *Language and Education*, 15, 2&3, 146-162.
- Nixon, H. (1998). Fun and games are serious business. In J. Sefton-Green (Ed.), *Digital Diversions: Youth Culture in the Age of Multimedia*. Routledge, an imprint of Taylor & Francis Books Ltd.
- O'Hear, S. & Sefton-Green, J. (2004). Creative 'Communities': How technology Mediates Social Worlds. In D. Miell & K. Littleton (Eds.), *Collaborative Creativity: Contemporary Perspectives*. London: Free Association Press.
- Papert, S. A. (1993). *Mindstorms: Children, Computers, and Powerful Ideas*. Perseus Books, U.S.
- Prensky, M. (2006). *Don't Bother Me Mom -- I'm Learning!*. Paragon House Publishers.
- Rose, J. (2001). *The Intellectual Life of the British Working Classes*. Yale University Press.
- Scribner, S. & Cole, M. (1973). Cognitive Consequences of Formal and Informal Education. *Science*, 182, 553-559.
- Sefton-Green, J. (2006a). New Spaces for Learning: developing the ecology of out-of school education. *Hawke Research Institute Working Paper Series No 35*.
- Sefton-Green, J. (2004a). Initiation Rites: A Small boy in a Poke-World. In J. Tobin (Ed.), *Pikachu's Global Adventure: the Rise and Fall of Pokemon*. Durham: Duke University Press.
- Sefton-Green, J. (2004b). Literature Review in informal learning with technology outside school.
- Sefton-Green, J. (2006b). Youth, Technology and Media Cultures. *Review of Research in Education*, 30, 279-306.
- Selwyn, N. (2006). ICT in adult education: defining the territory. *ICT and Learning: supporting out-of-school youth and adults*. Paris: OECD.
- Tapscott, D. (1999). *Growing Up Digital: Rise of the Net Generation (Oracle Press)*. McGraw-Hill Education.
- Warschauer, M. (2004). *Technology and Social Inclusion: Rethinking the Digital Divide*. The MIT Press.