Chapter 1 – Background to the research: What is my concern?

I make this preliminary note in advance to prepare the reader for the two forms of the thesis. The thesis has been written in two forms; the one you are reading now is in linguistic form. It is also available in multimedia form as a web site at www.ictaspoliticalaction.com and a copy of the website is available on DVD-ROM in Appendix C.

The linguistic version of the thesis is best read in conjunction with the multimedia thesis. Within the thesis I explain how I believe ICT has a transformational quality. That quality of transformation has been employed in transforming the traditional thesis into a multimedia form. In some cases the multimedia form of the thesis has the capacity to convey ideas and provide evidence more clearly. In making this claim I am drawing on the ideas of theorists like Eisner who has said that '…Not everything knowable can be articulated in propositional form' (Eisner 2002: 7).

Introduction

In my practice as a teacher and administrator I sometimes find the people I work with – students, teachers and administrators – are frequently marginalised and silenced and not treated as if they have a significant contribution to make. I believe these practices are grounded in forms of institutional logic within schools that plug learners into 'bolt down seats and lock–step curricula' (Cook-Sather 2002: 3). Teachers are similarly controlled by being regarded as 'skilled engineers' who guide students through curricula whose form and content are determined elsewhere. Curriculum itself is conceptualised as being held by gatekeepers who transfer discrete packages of knowledge by didactic means (Kleinsasser *et al*. 1994). The work of administrators tends to be conceptualised in similar mechanistic ways, being regarded as implementing functional events, requiring simple collation and reporting. These conceptualisations are actualised in the instances of frustration that I have referred to previously in terms of students being removed from class and administrators expressing frustration about how they are viewed. Both sets of behaviours are regarded as institutionally unacceptable. This situation denies my values of inclusion and justice. As a teacher and consultant of ICT I have therefore attempted to improve and theorise my practice by engaging with students, teachers and administrators in asking the question: 'Can

I reconceptualise ICT as political action?' In other words can ICT be used in a way to enable people to exercise self-determination for self-development?

In this chapter I will address the underlying concerns that led me to research my practice. My work is underpinned by my ontological values which are based in justice, creativity and freedom. I will relate these ontological values to a range of conceptual frameworks, in particular to those established by Arendt (1958), Foucault (1977), Habermas (1975), Lukes (1974; 2005) and others. These frameworks focus on matters of justice and freedom, with the abuse of power and control forming the major factor denying justice and freedom. I will explain how I experience myself as a 'living contradiction' within my working contexts when my ontological values are denied in my practice. I will describe how I came to realise that the same logics of domination and control that permeate school practices permeate the literatures and how this set me on the path to developing my living theory of practice in order to address these issues.

I will start this chapter by drawing on Freire's (1985) location of human beings as both subjects and objects of history. I also locate myself as the subject and object of my history, and in that way show how I have come to carry out this research with others as active participants and as real subjects making history by being continually critical of our very lives (Freire 1985: 199). In a real sense I am also the subject and object of this thesis. First I tell some of my background to contextualise this study.

My history and culture make me while I make my history and culture

I grew up in a working class area of Dublin as one of ten children. None of my siblings attended third level education apart from one brother who attended a seminary. None of my generation of forty-two cousins entered third level education from school, although a number returned as mature students. Of my Leaving Certificate cohort of one hundred and twenty six, four entered third level education directly from school. Clearly third level education was not common in my social milieu.

Two years after leaving school I joined a local community group called the Young Christian Workers (YCW). This movement set out to enable young workers, who were often disadvantaged by their lack of education, to become leaders. It supported us in doing this by using the 'enquiry method' or the 'See-Judge-Act' method (Fievez and Meert 1974). The method enabled us as young workers to meet in a group to engage dialogically with

each other as we examined our daily situations at home, at work and socially. We were encouraged to look for mismatches between our experience of life and what we believed in as Christians, to reflect on these situations, to arrive at actions to be taken and, after the action was taken, to re-evaluate, reflect again and move on to new actions (O'Neill 1996). The methodology provided us with the means of acting in solidarity to improve our lives as a means of enabling each of us, collaboratively, to become aware of our situation and the situations of our fellow workers. It provided us with an approach to examine, analyse and confront the often unjust realities of our lives. It also provided us with a means of effecting change in our lives. The YCW introduced me to the ideas of Paulo Freire (1972) and his emancipatory approach to enabling workers to learn from their own lives, to educate themselves by raising their consciousness of their lives and taking action to improve their lives. Although it did not enter my consciousness at the time, my experiences within the YCW held out the prospect of challenging the systems that I would subsequently work within and find ways of practice that would be life-affirming for those involved.

Some five years later I was teaching in a large boys' secondary school in north Dublin. There was a wide mix of students in the school; some were highly academic and ambitious in a traditional sense. Others were not academic, and their ambition was harder to see. I could identify with many of my students. Their backgrounds were similar to mine; they lived in similar areas with similar problems to the one I had grown up in. But the dominant view of education within the school was traditional. The school was regarded by many as a 'very good school', with 'very high standards'. Many students responded well to this model of education but some did not. Those who did not reminded me of myself and my friends in the YCW movement, and in them I could see possibilities: many of the YCW members did not excel in school but were a formidable force of young worker activists.

In my class work I became involved in many activities which attempted to support students by following approaches which tried to place the students at the centre of their own education (O'Neill 1996). I became involved in this work, relying on my YCW methodology and my intuition. At the time I did not consider my YCW work to be educational. I now realise that it was probably more educational both for my friends and myself than many of the things that I do in my classroom. By this I mean that much of what goes on in classrooms in my school, my classroom included, fits into what might be called traditional education (Dewey 1938: 17). The subject matter is a given body of

material which has been worked out in the past. Within this view the main function of school is to pass this on to a new generation. In addition rules and standards have been worked out and students must develop habits which are in conformity with those rules and standards. Within this model of handing down subject matter and standards from the past, the teacher's function relates to the possession of knowledge of the subject matter and standards and the ability to pass it on to a more or less docile and obedient student body. The students' role is to accept with docility and obedience what is being offered. This approach to education 'is to a large extent the cultural product of societies that assumed the future would be much like the past' (Dewey 1938: 17). However, the reality we face today is that, in many aspects of our lives, change is the norm, not the exception, and the traditional model suffers from issues of relevance and acceptance from a student body that has members who are no longer docile. The theme of change is relevant not just to my school practice but to my practice as a consultant to the national awarding body, NCVA, which is the context to which I now turn.

In 1995 the Department of Education and Science estimated that there might eventually be 15,000 candidates for certification by NCVA (Rialtas na hÉireann 1995: 73). However, by 1998 the number already exceeded 21,000 (NCVA 1998). The increasing demand for certification without additional personnel to handle it was leaving administrative staff feeling frustrated and inadequate. In NCVA it was clear that the future would not be the same as the past, and there was a need to find ways of visualising a new future and finding ways of getting there (Schön 1987: 5).

I was aware of Dewey's idea that most people act habitually in patterns transmitted by imitated practice requiring little use of critical engagement (Glass 2001: 17). At the same time many of the aims and purposes of teachers are not the result of conscious choice but are the result of constraints contained within a social structure that they have little if any control over (Carr and Kemmis 1986: 130). The dominant model in use in schools depends on this. This is probably also true of educational administration. Within NCVA, certification administration staff felt that they were powerless to change a system that they found inadequate and frustrating. I undertook a collaborative project to find ways of improving what we do. When I asked my colleagues about their work they expressed their frustration directly in terms of the detail of handling the candidate entry data, as communicated in the following extract from my masters dissertation:

> This form can justifiably be described as a 'minefield' to those of us with only average powers of observation. It is infinitely easier to accomplish recognition by using the <u>names of things</u> rather than using codes as in the case of this form. The difficulty is compounded by… [the fact that] codes may differ from each other by a <u>single digit</u> or <u>a single letter</u>
>
> (O'Neill 1997: 37, emphasis in original)

When I asked them to explain further, they expressed how the increasing numbers of candidates for certification were contributing to their frustration:

> I accept that the problems that are outlined above may not impinge greatly on centres with a small number of candidates. However, in our case, with candidate numbers at 700 (approx.) and growing, it is imperative in the interests of accuracy and convenience that the system can be made as simple and streamlined as possible.
>
> (O'Neill 1997: 38)

My insight into this situation was that we were operating within a social system that was assumed to be unproblematic. Within social systems that are taken for granted there is a need to elucidate conditions that distort self-understanding and reveal how they can be eliminated (Carr and Kemmis 1986: 136-7). One of the difficulties in carrying out research within one's workplaces is that the routines and the actions of everybody involved may seem so obvious that in order to ask questions about the rationale behind the actions we somehow have to 'un-familiarise' ourselves with it in order to be able to illuminate the taken for granted. The idea of 'making the familiar unfamiliar', sometimes phrased as 'making the familiar strange', is widespread in art (Hawkes 1977: 62-67) and semiotics (Lemon and Reis 1965) and its origin has been attributed to the German poet Novalis (Chandler 2001). My approach to this has involved attempting to make the familiar unfamiliar by critically examining what I experience as commonplace and ordinary in the light of insights gained elsewhere, including insights gained outside of teaching, learning and educational administration, and from critically engaging with the literature. In doing this I empathised with the idea that traditional models of learning no longer work for many, and new models that place people at the centre of activity are required.

These ideas are not confined to the field of education but are becoming apparent in many fields, such as economics. Economist Arie de Geus found that many Fortune 500 companies do not last beyond forty or fifty years (de Geus and Senge 1997). Drawing on the work of other authors (Collins and Porras 2002), he suggests that companies die

because their managers focus on the economic activity of producing goods and services, and they forget that their organisation's true nature is that of a community of humans. Such companies develop routines as a means of operation. Routines may be taken because we don't want to take decisions. We create so many routines that after ten or fifteen years we can no longer see beyond them.

De Geus argues for the need to develop a 'living company', a company that welcomes change and innovates. He cites Nokia as such a company. Thirty years ago Nokia was primarily a paper manufacturer. Today we recognise it as a high technology company. Nokia has been able to transform itself. De Geus's ideas have resonances for my work. I recognise how my work in school and with NCVA focuses on 'outputs'. In school the outputs are examination grades; in NCVA the outputs are certificates issued. In relation to these practices we have developed routines. In school these routines are based around how we teach and how we behave. In NCVA they are based around processing data and issuing results. Some of these practices may not work any more but we continue them because they have become routines. In the past in school I have had the expectation of students behaving in particular ways. When they do not behave in those normative ways I have assigned various punishments like written exercises or detention or exclusion from class. My experience has been that these do not work. However these activities tended to take the form of routines which were carried out even if they do not work. It seems to me if we wish to transform our practice there is a need to get out of established roles (Tsoukas 2002: 423) and disrupt rules and routines (Beech *et al.* 2002: 473). In moving forward therefore a key question is 'What are the factors that permit or restrict transformation?'

So, in the next section I will begin to address this issue by explaining the conceptual frameworks that underlie my research.

Conceptual frameworks of my study

Social practices, including educational practices are informed by different sets of values. Dewey (1997) claims that the purpose of traditional education is passing on the learning of the past to a new generation. Foucault (1977) might argue that it is also about control. De Geus and Senge's (1997) approach is based on valuing people and building communities of practice (Lave and Wenger 1991; Wenger 1998). In each case practice is based on its underlying values or logics. The relationship between a person's sense of being, what the

person knows and how the person carries out their practice is important. Expressed in more abstract terms, my understanding is that ontology can transform into epistemology and into practice in the sense that a relational sense of being can be transformative (Whitehead and McNiff 2006). A relational sense of being can develop relational ways of knowing leading to relational practice. This can be seen in the thesis in the transformation of ICT into political action. Propositional ways of being can lead to routines (Tsoukas 1998), whereas relational ways of being tend to be based on experiences which lead to narratives shared in communities of practice (Orr 1996). Within my school we have a mission statement that places emphasis on respect. But mission statements are propositions; they do not necessarily lead to action.

I believe many institutions, including my school, operate on propositional logics. Within such a mindset, respect remains an abstract value. As a result it is seen to be important to have a mission statement valuing respect but it is not seen as necessary to reveal the behaviours or to change the routines within the organisation that deny that respect in practice. A living mission may not be a statement at all but may be evident in practice. In relation to my work I have come to appreciate that I need to look at underlying logics. When I draw on writers like Arendt, Habermas and many others I need to be aware that their theories are propositional. The challenge for me is to make use of the inspiration that I gain from them in a living way. Consequently, I attempt to enfold their propositional theories within my living theory. The evidence of my success will be in the quality of learning relationships formed.

Within my work I experience contradiction and uncertainty. I experience myself as a living contradiction when my practice is in conflict with my values. This happens in school when I exclude a student from my class while claiming that I respect people and the diversity among people. I experience this contradiction when I teach class through didactic means, when I know that there are students whose ways of knowing are kinaesthetic or visual or interpersonal (Gardner 1993; Gardner and Hatch 1989). As a result my mode of teaching discriminates unnecessarily among students. In NCVA I experience contradiction when I expect administrators to deal with large volumes of data and to interpret it all correctly without error. I experience uncertainty when I attempt new ways of working with students, colleagues or administrators. My uncertainty is based on moving away from the security of routines and taking risks in the hope of contributing to improving our practice. My

experience of contradiction and uncertainty within my work leads me to provisional answers formed within a web of connection (Bateson 1979). Dialectical approaches accept that life is full of contradictions. However the dialectical theorists have generally spoken about dialectical theory in a propositional way (Whitehead and McNiff 2006: 32). In generating my idea of ICT as political action I am putting my theory into the literature and attempting to transform propositional theory into living theory. By this I mean that my living theory of ICT as political action is based within my practice.

You may wonder how this transformation occurs in reality. Let me explain how I have incorporated propositional theory within my living theory.

I have recognised that, in the past, I have used traditional didactic modes of practice and I have been authoritarian and controlling in my work places. In examining my practice and engaging with the literature I began to conceive of the idea that my students might know something of their own and my practice. I therefore proceeded to undertake a study which involved asking them about their experience of our classes. I have recounted the research elsewhere (O'Neill 1994a). When I asked my students about my classroom practice they told me:

> You talk too much.
>
> We have too much writing to do.
>
> We want to make more things.

> (O'Neill 1994a)

My experience of engaging with my students and seeking their views of classroom practice became a key part of improving my practice. This became the first step in developing ways of practising that are more democratic and participatory for those involved. Parallel to what I was doing in school, I initiated the formation of the Action Learning group in NCVA, and supported colleagues in carrying out action research enquiries which gave colleagues the opportunity to take control of their practice in ways that had not happened previously. I carried out my action research project into supporting them in carrying out their research into their practice and modifying their practice in the light of their findings. My research into supporting them formed a process of enablement by which they were able to use their ways of knowing and their ways of learning to bring greater meaning to their

lives. The comments of colleagues in relation to some of the changes undertaken show their move from frustration to satisfaction within their workplace:

> The response in the centres to the changes in the forms, the response we got at the information seminars was nothing but delight!

(cited in O'Neill 1997: 51)

A similar satisfaction was expressed in relation to the benefits of the Action Learning Group that I had initiated and supported:

> [It was] clear that the participants viewed the group as a very positive learning experience.

(Deane 2000: 132).

In school I have developed modes of teaching, particularly through ICT, that focus on learning relationships rather than didactic practices. The effects of changing my practice can be seen in the work on web sites by Leaving Certificate Applied (LCA) students (see http://www.ictaspoliticalaction.com/webs/lca2002/Default.htm). LCA is a programme that allows students whose interests and inclinations are not particularly academic to remain within mainstream school and achieve the Leaving Certificate like their more academic schoolmates.

> Unusually in an Irish context, the LCA programme has been designed on a modular basis, organised in half-year blocks or sessions, around a common curriculum framework. It is pre-vocational in character and is aimed primarily at those students who do not wish to proceed directly to third level education and those whose aptitudes, needs and abilities are not adequately catered for by the established Leaving Certificate. Perhaps the most distinguishing feature of the Leaving Certificate Applied is its emphasis on participants learning by doing, applying knowledge and skills to undertaking tasks and solving problems in an integrated way in the real world. In doing so, there are significant levels of interaction with the local community

(Gleeson 2002: 87).

Drawing on ideas from the literature, the approach that I was trying to develop within the LCA programme was based on group learning that builds on individual learning. While students carried out their work on an individual basis some of the time there was an emphasis on integration and collaboration. By setting tasks that drew on different aspects of their programme I encouraged integration in learning (Boyer 1990). When the students were developing their websites I encouraged them to include aspects of their other courses.

> We were told what we had to do as part of this task and that we had to try
> to think of ideas for what we could do as part our key assignment. We
> also set up a diary and we [were] also informed that we would be required
> to integrate our other subjects and use them as part of our final product.

<div align="right">(Fitzgerald 2002: 5)</div>

The students made their choices around the medium for that learning. I will address this in more detail in Chapter 5 but for the moment let me mention my uncertainty in relation to this work by citing a specific example.

When invited to choose topics for developing their web sites, one student decided to develop a World Wrestling Entertainment (WWE) website. I felt distinctly uneasy about this as an appropriate topic for a web site built as a school project. However I lived with my unease and was surprised with the outcomes for the student involved. In his report on the project he indicated that there were three distinct aspects to his learning. First he learned more than he previously knew about wrestling. Second, he learned new ICT skills. Third, he learned about himself. In his report he said:

> I used to think I was no use at computers, now I think I am quite good. I
> think computers might be useful to me in the future.

<div align="right">(Fallon 2002: 2)</div>

The student was involved in learning not just about matters external to himself; he was also travelling on a voyage of self-discovery. On this voyage he was starting to take control of his life by planning for his future.

My idea of 'ICT as political action' is grounded within practices like those above and others detailed in Chapter 5. I have drawn on Arendt's propositional ideas around political action. I have shown the realisation of these ideas in my practice. I believe that the student involved in building the WWE website was involved in political action, as were the members of the NCVA Action Learning Group. Each in their way had moved on from activities that could be considered labour or work and into action. 'Action is the activity undertaken by people that enables them to make their place in the world' (Arendt 1958: 145). The people involved in the activities mentioned above were taking their place in the world. I am claiming that through my actions of creating the conditions of learning I have enabled young people to show how they can realise their natality. Based on this evidence and that given later I claim that I am taking Arendt's propositional theory and incorporating it within my living theory of practice.

Within the activities described above I have provided the supportive relationships that enable my students and colleagues to do what it is that they want to do. By developing a form of practice for me that allows people to feel that what they are doing is important, I am enabling them to take control of their lives and plan their futures. Relational forms of knowledge can generate relational forms of practice and relational forms of theory. 'ICT as political action' is such a relational form. Within relational forms of being, knowing and practice, I am encouraging people to be free thinkers, to think critically and to ask awkward questions to achieve an open society (Russell 1988).

This view is extended by Said (1994), who, in arguing for the intellectual to challenge normative assumptions, sets a challenge to teachers and would-be leaders. The challenge is to question the dominant system and in particular the attitudinal system. This point is especially relevant for traditional forms of schooling. A key aspect of most schools, my own included, is the hierarchical nature of human relationships where different people have differing positions and differing roles. So the expectation is that teachers teach and students learn. There is no expectation that teachers learn or that students teach, or that co-learning can take place. When I set out to improve my practice by devising the idea and undertaking the formation of a web design class that included students, teachers and the principal as learners and sought a student from the nearby university to 'teach' the class, I was challenging the attitudinal system that sees a strict hierarchy within schools and identifies teachers as knowers, and students as *tabula rasa* to be written on. Similarly, when I set out to improve my practice by initiating and supporting the Action Learning Group in NCVA, by involving workers at all levels within the organisation in examining their practice and offering their reflections on that practice for critique within the group, I was challenging the normative attitudinal system. This system sees one part of the staff as 'knowing' policy makers and another part as 'doing' administrators who implement that policy without contributing to it and without questioning it. But the challenges to the attitudinal system went beyond these activities. By offering people the opportunity to learn and to think for themselves I was offering them the means to challenge their attitudes. My support for the Action Learning Group and for the web design projects involved encouraging students and colleagues to create their living theories and test their validity.

These activities, among others that I initiated and supported, enabled people to challenge existing orthodoxies and decide new methods of working and interacting. This was the

case with the approach that I took to supporting students in carrying out the personal reflection task detailed in Chapter 5 where students explain the ways of learning that work for them. While this task is a prescribed part of the Leaving Certificate Applied programme the approach that I developed in carrying out the task enabled students to take control of their learning and, by reflection on that learning, to understand better their abilities and talents and to plan how they would use those abilities and talents in the future. In this way they set about authoring their futures and, instead of being passive consumers of education, they became active creators of their own lives.

The motivation for my work and for my research is driven by my personal values base. I have values in relation to people. These have particular expression in relation to education. First, I believe everyone is a unique and special individual. As a teenager working with youth groups in the Young Christian Workers (YCW) I formulated this naively by stating: we are all unique individuals, children of God, and as such have a special place in the universe. This place can only be filled by one. Consequently to deny a person their place in the universe is the most serious wrong that can be done. As I looked for a theoretical base for my work I found that similar ideas can be seen in Arendt's (1958: 8-9) concept of natality. Natality emphasizes the possibility for original human agency: each person has the capacity for a new beginning, for contributing something unique to human experience. Arendt's conception of natality drew me to her work on 'The Human Condition' (1958). Her ideas on human activity posed a challenge in relation to my activities within my practice as teacher and consultant.

The framework of political action

I have referred to Arendt's (1958) examination of 'the human condition' where she offers new ways of looking at the world and at human affairs based on justice. At this point I want to engage more fully with Arendt's ideas and show how they can form the basis for a reconceptualisation of ICT as a transformational medium with the potential to support individual human agency rather than how ICT are commonly seen: as a productivity tool. In Arendt's view human activity can be divided into three types. She calls these labour, work and action and she represents these as a hierarchy. Labour is the activity that is not undertaken for its own sake but in order to provide the necessities of life (Arendt 1958: 83). Labour can be seen as those everyday activities that we undertake to get by: those that we

do not necessarily choose to do but which we have to do. I am reluctant to name activities which constitute labour because I am aware that another might see a higher order activity in those that I describe as labour. Nonetheless, I will offer these suggestions tentatively and invite you to consider them and we can engage dialogically with them. In the introduction I have indicated how I engage dialogically through the thesis, and I ask you to bear those ideas in mind now.

It seems to me that from the point of view of the teacher in a school, mundane tasks like maintaining the attendance rolls or organising the classroom furniture could be seen as labour. From the perspective of the ICT teacher or the ICT administrator running the virus scanner or ensuring the network or email works could be seen as labour. This is effort that leaves nothing behind and the 'result of this effort is almost as quickly consumed as the effort is spent' (Arendt 1958: 87). These are vital jobs that need to be done and need to be repeated day after day but they are not core functions of the teacher or ICT administrator. Frequently as a teacher of ICT I find my time taken up by mundane activities. Many other teachers of ICT report the same. If a student cannot access a working computer or if the Internet connection is unavailable it is difficult for the student to get involved in transformational activities through the medium of ICT. For me as a teacher of ICT I need to find ways of working with ICT that go beyond labour. The activities that I detail later in relation to building a robust ICT infrastructure form an important part of moving beyond ICT as labour. A robust and dependable infrastructure provided me and my students with the tools required to explore ICT in more life-affirming ways.

Arendt's second form of activity is work. Although the terms 'work' and 'labour' are often used interchangeably in everyday discourses, Arendt (1958: 80) argues there has always been a difference between them. Her argument is on the etymological basis that every European language, ancient and modern, has separate words for work and labour. If we proceed on the basis of her distinction, the 'work of our hands' can be seen as the production of durable artefacts (*ibid:* 136). People who undertake 'work' are often craftspeople and artists who make objects which are durable in the world. A key contrast between labour and work is that labour does not produce lasting goods; but work produces the 'sheer unending variety of things' which constitutes human artifice (*ibid:* 136). In common with many others I have acknowledged the superiority of work over labour and the importance of the 'work of the hands' when I encourage students to bring home the

clock that they made for the mini-company or the rain detector constructed in Technology class. An important aspect of these items was their durability. For some students the clock was still on the kitchen wall many years later. When I provided opportunities and supported my colleagues and students in developing multimedia presentations or web sites I was supporting them in developing 'durable artefacts' (*ibid:* 136) which in many cases had a 'use value' and could be used repeatedly. These activities could, in Arendtian terms, be judged 'work'. In moving my conceptualisation of ICT from labour to work I am making some progress toward a reconceptualisation of ICT but this is some distance from a transformational conceptualisation of ICT.

Arendt's third type of activity offers an interpretation that could support a transformational view of ICT. She proposes a type of activity which she calls 'action' and she associates speech with action (Arendt 1958: 175-243). In Arendt's view action is a public category, a worldly practice that is experienced in our intercourse with others, and so is a practice that both presupposes and can be actualized only in a human polity (Yar 2000: 8). Action is primarily about the disclosure of the agent in speech and action (Arendt 1958: 175). She makes the link between action, speech and disclosure clear in her initial framing of the chapter where she addresses the concept of action. Arendt starts the chapter by citing Dinesen: 'All sorrow can be borne if you put them in a story or tell a story about them'[1] and Dante: '…nothing acts unless [by acting] it makes patent its latent self'[2] (Arendt 1958: 175). By using these as initial references for her discussion of action she links action and speech with the narrative form. There are suggestions that the use of the quotation from Dinesen, a self-proclaimed story-teller, is in contrast to the Latin quotation from Dante and to the discussion of Greek philosophy and politics that follows (Wilkinson 2004). On the contrary I believe that Arendt was making the point that storytelling plays a key role in the life of the *polis*.

The link between action, speech and self-disclosure provides important grounds for my work with students. It suggests that the highest form of activity that can be undertaken in class is not learning by rote or through abstraction or by hiding behinds roles like teacher

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[1] No source given. It may be paraphrased from a comment made by Isak Dinesen *alias* Karen Blixen in a telephone interview published in The New York Times Book Review on 3 November 1957 (and reprinted in 2000 in a collection of interviews and talks edited by Else Brundbjerg. *Samtaler med Karen Blixen* [Interviews with Karen Blixen] Copenhagen: Gyldendal, 254-55).
[2] Dante, no source given. A later reference (p 208) suggests that this is Arendt's translation of a quotation from Dante *De monarchia* i. 13

and student but by revealing oneself as a human being. That self-disclosure is revealed though speech and action. While working with my students on their web design projects I engaged with them in dialogical processes of deciding what work we would undertake. By choosing to design a particular web site and publish it my students were self-disclosing: they were saying, 'I have an interest in doing this and in making my interest public'. By writing reports of their experiences they were reflecting on what they had done and revealing their inner thoughts. One student revealed his insecurities at the outset of the LCA programme but his sense of satisfaction and achievement is made clear in his later reflections:

> When I was just starting I would never have thought I would be able to use a computer at the level that I can use a computer today. Even things as simple as typing was hard at first, and when we went onto the other things it took a good while to get my head around it…I learned something new nearly everyday since the start of LCA. In the past year and a half I have learned so much about computers that I did not think it was possible.
>
> (Clifford 2004: 2)

Another student gained deep insight into his abilities and gained the confidence to articulate his realisation of his capacities and inclinations.

> I found out that I am capable of learning on my own initiative. I found out that I am capable of learning things when I write them down.
>
> (Kearns 2004: 5)

By developing an innovative approach to the personal reflection task and other ICT based activities I was enabling my students to engage in political action through the medium of ICT. By choosing to support my students in this way I was self-disclosing. I was revealing the ways that I preferred to work with my students: in emancipatory processes involving dialogue and action. I believe that these reflections indicate that I have learned how to teach in a way that enables others to learn. In my approach to teaching I use ICT to enable others to learn. At the same time I teach them to use ICT to develop their agency. ICT is used in a productive sense by my students, colleagues and me working collaboratively. We each position ourselves as agents who are using ICT to realise our potential. This enablement shows that I value these young people and my colleagues.

In Arendt's terms, action is the activity undertaken by people that enables them to take their place in the world (Arendt 1958: 176). Central to the idea of action is the idea of 'plurality'. Plurality is often taken to refer to the diversity among people. Plurality in some respects is

a contradictory term in that it refers to the sense in which we are all the same as humans: that we are all different. So plurality has the character of both equality and distinction (*ibid:* 175). Within my work I attempt to value plurality by valuing the differences between people. As a novice teacher and occasionally later, my actions in excluding students from my class from time to time suggests that in practice I valued conformity rather than diversity. In hindsight I believe that students who refused to conform to ideas that they should dress in a particular way, sit in a particular way or speak at particular times threatened my need for a particular conception of order. I punished these students in a variety of ways. As I came to understand that people come to know in different ways and learn in different ways and have different inclinations, I have begun to value their plurality by opening up ways of learning and acting that support them within diversity. By rejecting normative assumptions about how people are and should be I am working toward providing greater equality among people by recognising people's individualities, or in Arendt's words 'distinction' (Arendt 1958: 176).

In more abstract political terms, if people do not have equality they cannot understand each other or see the needs of each other. If they were not different they would not need speech or action to make themselves understood. It is the plurality among people that is the basis of action. Each person is capable of new action and new perspectives and they will not fit a tidy predictable model. Only the experience of sharing a common world with others who look at it from different perspectives can enable us to see reality in the round and to develop a shared common sense (Canovan in Arendt 1958: xiii). Let me take these propositional ideas and present them in a living way.

In one of his personal reflection task assignments, Matthew (Reilly 2004) choose to carry out his task by using a website that provided ideas on writing a covering letter to accompany his curriculum vitae in support of a job application. In the assignment I asked Matthew to select the three most important points made in the online article and discuss them with three classmates. In Matthew's reflection he wrote:

> I discussed these points with three members of my class… D. and S. agreed that they think they would use these points but M. said they weren't the points he would have went with.

> (Reilly 2004: 1)

Matthew's account shows him entering into dialogue with co-learners. By entering into dialogue they were expressing their equality. Within dialogue they encountered plurality:

they did not have the same perspective on what was the most important point in the online article. Matthew does not give a full account of the discussion that took place but from the equanimity of his account it appears that he accepted that there were different points of view. While engaging with the members of his group on an equal basis he recognised the distinction among the membership. The particular innovative approach that I had taken to the Personal Reflection task enabled Matthew and his classmates to decide on the content of their learning, to make their decisions on what was important in their learning, to engage dialogically with each other about that learning and through this process embody the principles of plurality in the form of equality and distinction.

In addition to plurality, Arendt claims that of the three activities, action has the closest connection with natality. Natality is the new beginning as a result of birth that holds out the prospect of further new beginnings by the new born acting. Essentially natality can be seen as the recognition of the uniqueness of the individual, not as a result of some special talent or ability, but simply because they were born. All humans as a consequence of their birth hold out the possibility of starting new things. When I enter a classroom I can choose to stifle those new beginnings or I can choose to enable new beginnings. In my practice as a teacher I have often stifled new beginnings by seeking conformity rather than creativity. I have justified stifling new beginnings on the basis that I have a course to cover, or we don't have time. However, through the activities described above and later in this thesis I explain how I have supported new beginnings. One of the consequences of this is that I have started to expect the unexpected because people are capable of action, of beginning something new. Natality points to the uniqueness and 'specialness' of every person despite what the appearances may be sometimes. The implications of this for me and for other teachers and students of ICT is that ICT can be conceptualised as action when it involves the use of multimedia tools and technologies to support original human agency – this can be 'action' in the Arendtian sense and within this action in the context of ICT, the unexpected can be expected. In the brief account of Matthew's activities above, Matthew was accounting for the new born acting. By his action he was starting a new beginning; in his speech he was disclosing himself. In the web of relationships that he formed in dialogue he started a process which eventually emerges as the unique life story of the newcomer as he influenced the life stories of those around him (Arendt 1958: 184). I will present these life stories in greater detail in Chapter 5.

Arendt's conceptualisation of human activity, although presented in a propositional way, offers an analysis that could form the basis for my living theory of practice. It seems to me that school activity that I have difficulty with could be seen in Arendtian terms as labour and occasionally work but rarely action. The challenge from reading Arendt is to develop school practices which take the form of work or action rather than labour. A key question is: does traditional didactic teaching provide scope for action? It seems, to me, not. Within our schools quiet classes are often prized but this is in direct contrast to Arendt's conception of being fully human. In Arendt's terms, action is the pinnacle of human activity and action is primarily about the disclosure of the agent in speech and action (Arendt 1958: 175). On that basis the humanity of the silenced class would not be fully realised. Excluding students from class is often because of the student's unwillingness to conform. Arendt's emphasis on plurality emphasises the difference between people. This suggests that striving for conformity is lacking in humanity. For me, as a practitioner, trying to develop a practice which realises the values that I consider contribute to full humanity, Arendt provides a unit of analysis against which to test the validity of my practice. Within the detailed account I give later, evidence is provided of changes in my teaching practices that start the process of moving away from labour, and into work and on to action.

Arendt speaks about how action allows each individual the opportunity to give meaning to human life. In recognition of people's natality, educators have a responsibility to support those that we work with 'to be the best' (Arendt 1958: 19). That responsibility lies, in the first instance, with themselves. My first responsibility as an educator is to be the best that I can be. I can be the best that I can be by supporting others in their struggles to be the best that they can be. This responsibility is not a consequence of my work. It is a part of my natality. I carry this responsibility simply because I am alive. The responsibility lies with me in the various places that I live with my students, my colleagues, my family and friends. The responsibility is to support others to realise their natality. I have given indications of how I do this in the previous paragraphs and I will address this in more detail in Chapter 5. Arendt's ideas hold out the prospect of challenging traditional views of education by providing a model based on action within the world, rather than one of conformity to the institution. Moving from existing practice to a new model is not a single change event but a wide range of differing responses in varying circumstances.

My initial attempts to address the dissonance in my practice therefore focussed on moving my work towards practices that enabled students to exercise more control. In the section below dealing with the development of self-instructional guides I will indicate how this approach, while still being restrictive, offered students the opportunity to exercise a greater level of control over their learning. By taking this approach I removed myself from being the focus of attention, teaching from the top of the class, to a situation where I was in a position to give attention to individual students. This fundamentally changed the relationship between students and teacher. This was an intermediate stage in moving students towards greater autonomy. When I eventually initiated the Setanta project and an innovative approach to the LCA personal reflection work (see Chapter 5) I provided much greater autonomy to students and thus contributed to their realisation of their natality.

The framework of communicative action

While my belief in natality is important, simply believing that every individual has the capacity for original human agency is not enough. In contrast to traditional views in education and educational research, I see education as a means of expressing one's original human agency. I see learning as being central to this. Consequently, I see learning as a lifelong process, not in the sense that we all need formal learning and retraining throughout life, but in the sense that to live is to learn (see Dewey 1916: 358-60). While the conventional view is that learning takes place within specific locations and contexts, I take the view that learning is not bound by context or location. My learning does not begin and end in the classroom or the lecture hall; my life is the living embodiment of my learning. My thinking is influenced by Habermas's (1975) idea that learning is part of the human condition: humans cannot not learn in processes of social evolution. This is also my vision for my students and colleagues. Learning is not something that is 'done to' them or that they 'do to' others; learning is a process that we participate in together. While there is a view that learning is a characteristic of the individual learner, my experience of myself and my students is that the learning that I value is enhanced, transformed and developed by cultural interaction among people. This may be a matter of individual learning transforming into collective learning.

The challenge for me from this understanding, as a teacher and consultant on ICT, has been to devise ways that support this model of learning. In my case, throughout this thesis it

should be apparent that having realised that I do not learn particularly well within formal processes that take place within a classroom or at lectures, I have taken the initiative to support social and relational forms of learning through initiating the formation of a series of communities of practice (Lave and Wenger 1991; Wenger 1998). These include the communities formed by colleagues within the LCA programme, colleagues from school and the university that form the Setanta project, and colleagues within NCVA in the Action Learning Group. In the nature of communities of practice these groups of people overlap in many cases. My learning takes place within these communities, drawing on each other's experience and practice to devise new ways of teaching, learning and administering. From these communities I have devised new forms of learning that do not necessarily involve teaching. By providing the conditions that allow my students to engage in video conferences with students in distant countries or with world leaders I have enabled them to engage in a form of learning which is not bounded by location or context but which takes place where people come together with common interests. Ideas which help to explain how I changed my practice over a period of time are pursued later in this thesis and in the accompanying multimedia thesis (see DVD at Appendix C and www.ictaspolitical action.com).

In Arendt's conception, action is centrally connected with both natality and plurality. But the feature that links action and plurality is speech. Within the projects which form the basis of my research I have positioned communications in a central role. When choosing the first web based project for the Setanta project I strongly supported the students in the selection of an online art gallery. The gallery has the potential to bring the communication of aesthetic values closer to a wide range of students. At the same time, while establishing the organisational structure of the Setanta project, I placed communications at its organisational core by bringing together the students and staff of the school with the students and staff of the university in a dialogical activity to enhance the learning of all. The work I undertook collaboratively with students and staff to establish an infrastructural communications network throughout the school is an aspect of supporting communications within the school. The programme of videoconferencing with students in other cities and other countries, which I initiated and co-ordinated, was another aspect of supporting communications. These activities have communications, speech and dialogue at their core and throughout them. Buber has established the pedagogical worth of dialogue and revealed

the significance of 'relation'. He wrote – 'All real living is meeting' (Buber 1958: 25) and looked to how, in relation, we can fully open ourselves to the world, to others, and to God. The Setanta project, the LCA task work and the NCVA Action Learning Group supported dialogical processes which supported 'meeting' and enabled relational forms of learning. By undertaking these projects I believe I was promoting 'real living' (*ibid:* 25).

The emphasis on speech is in marked contrast to analyses of traditional education by Dewey (1938), Freire (1985) and Giroux (1992), among others, which focus on silencing voice. My experience of taking the steps toward a pedagogy of dialogue is that people are diverse. I started with the desire to engage with people and set about finding and creating opportunities to move outside the strait-jacket of the traditional classroom. I sought support and supporters among like-minded people. I developed practices within class that challenge traditional ways of being. I pursued school activities that take place outside of school. The wide range of activities described in the thesis form some of the steps toward a pedagogy of dialogue. I hope that this will be apparent as you proceed with me through the thesis.

Arendt's linking of speech and action has similarities with Habermas's idea of communicative action. Habermas breaks Marx's concept of 'sensuous human activity' into two essential types of human action: 'work' or 'purposive rational action' and 'communicative action' or 'social interaction' (McCarthy 1981: 22). This differs significantly from Arendt's tripartite division in some respects but Habermas develops rules around speech and action that act as a basis for autonomy and new forms of democracy. For Habermas, 'work' is the purposeful, rational use of tools for the satisfaction of human needs; 'communicative action' is interaction through which the knowing subject comes to know himself or herself through the eyes of others. The distinction between work and communicative action is essential since it is commonplace to be liberated from material want and still be enslaved in the ideological prison of institutional language. This can be the case in our increasingly prosperous global societies where products provide a good way of life and allow us to be seduced into 'one-dimensional thought and behaviour', which works against critical examination (Marcuse 1964). Challenging norms of attitude and behaviour is not easy. It may mean being involved in battles for ideas which can extend to battles for job security and professional recognition (McNiff and Whitehead 2000: 3). Said says that it can mean life or death for some (Said 1991). Battles over ideas have certainty affected

the health of colleagues and, I believe, has resulted in death for some. In such circumstances it can be easier to 'go-with-the-flow' and live within a relatively comfortable authoritarian environment. It is, however, possible to form enclaves of critical practice within a traditional environment and through them provide a better way of life. I believe that the communities of practice which underpinned the Setanta Project, the LCA programme and the NCVA Action Learning Group form such islands of critical practice and made a difference for community wellbeing. Initiating these communities and working with them and within them form a central part of my understanding of my practice and of the development of my living theory of practice. I will engage in more detail with the formation and mode of being of these enclaves in Chapter 5.

Habermas's theory of communicative action starts from a position that saying is a form of doing. In other words speech or indeed language is a form of activity. However as speech is normally directed toward someone then speech is also a social activity. Every utterance has a propositional and an interpersonal structure (Habermas 2000: 75). Speaking is at the one time saying something and at the same time addressing someone. However, speaking of its nature does not remove distortions and Habermas's ideas of speaking as action or communicative action necessitates the imagination of an ideal speech situation. For Habermas, the public sphere is 'a discursive arena that is home to citizen debate, deliberation, agreement and action' (Villa 1992: 712). Here individuals are able to share their views freely with one another in a process which closely resembles true participatory democracy. Everyone with the competence to speak and act is allowed to take part in a discourse. Everyone is allowed to question any assertion whatever. Everyone is allowed to introduce any assertion whatever into the discourse. Everyone is allowed to express her or his attitudes, desires and needs. No speaker may be prevented, by internal or external coercion, from exercising their rights to speak and to challenge others' assertions (McCarthy 1981: 305). For Habermas, the ideal speech situation anticipates a form of life in which autonomy and responsibility are possible. This is a form of life that I envision for myself, my colleagues and my students. This is an ideal far removed from the traditional classroom as described by Dewey (1938: 17-23) or from the traditional authoritarian school I find myself in. However I believe that the activities that I have initiated, begun to describe in this chapter and will engage with in more detail later show some of Habermas's

characteristics of a free speech situation and show the incorporation of propositional theory into living theory.

When a student is enabled to ask a prime minister, "Mr Ahern, how can Ulster Unionists trust you when you make a statement hoping for a United Ireland in your lifetime?' and receives a reply from the prime minister, I believe there are key elements of an ideal speech situation in place (see www.ictaspoliticalaction.com/pages/northsouth.htm). In posing his question the student is, in effect, making 'any assertion whatsoever'. By responding, the prime minister is acknowledging the legitimacy of the student's assertion. The entire group, prime ministers and students, are exercising their right to speak and to challenge each other's assertions.

Following the North/South schools link it became clear to me that video conferencing offered considerable possibilities for young people to engage with other young people to share experiences and ideas. Using this medium they could, with leaders in our society, pose questions and express views. At the inaugural meeting of our Comenius project I undertook to organise a video conference with these possibilities. With colleagues and students I planned the video conference with a number of threads. One of the threads involved students from my school, St Aidan's, and Loreto Grammar School, Omagh, asking and answering questions about each other's experiences of school and of each other's local environment (see www.ictaspoliticlaction.com/pages/comenius.htm). This process of asking and answering questions is part of a process of reaching understanding which is considered to be a process of reaching agreement among speaking and acting subjects (Habermas 1984: 286-7). The second thread involved teachers from St Aidan's, IES Margarita Salas in Madrid, Gymnázium Jana Papanka and Gymnázium Ludvíka Svobodu in Slovakia, and Loreto Grammar School in a conference discussing their experience of school and of teaching in their respective schools. The third thread involved students from St Aidan's and Omagh Grammar School in a conference with two candidates for election to the European Parliament, Mr Ben Briscoe and Mr Proinnsias de Rossa. All the participants were involved in what could be considered as approximating to an ideal speech situation.

Setting up the video conference presented me with a series of challenges. There were the technical challenges involved in getting the video conferencing equipment installed and operational. In Arendtian terms I see this type of ICT activity as labour – routine activity

that has to be done (Arendt 1958). Creating an environment to enable political action offered me another range of challenges. I looked for volunteers from the students involved in the Comenius project to take part in the video conference. But I was aware that taking part in a conference is not easy for the students involved. Getting involved in speaking publicly is difficult for some. Using the technology can also be a challenge. Video conferencing technology is not perfected and often the picture and sound are not synchronised. At the same time any movement by the participants can cause the image on screen to break up. These technical artefacts can contribute to the difficulties faced by the students. It was clear to me that we all needed to learn how to take part in the conference.

I sought the help of a colleague, Anne O'Driscoll, who had considerable experience of training students for public speaking and had supported the students who took part in the North/South link videoconference. Anne and I undertook a programme of supporting our students in drawing up questions and practising asking and answering each other's questions. However, while this enabled the students to develop skills of composing, asking and answering questions, it did not prepare them to deal with the challenges of the technology. I came up with the idea of setting up a 'video conference training suite' using our video conference system as one half of the suite and the school video-camera and TV as the other half. In this way we supported our students in rehearsing for the conference by providing a simulation of a conference with two groups of students within the classroom.

Finally we organised a 'dress rehearsal' where our students and students from Omagh Grammar School built their self-confidence by taking part in a conference with each other. Throughout this, Anne provided the students with guidance around making their questions clear and speaking so they could be understood. Eventually they took part in the conference mentioned above. I see Anne's and my involvement with this work as an aspect of the 'web of enablement'. The account I have given here shows some of the steps required to enable young people and teachers to speak for themselves and to exercise their agency in their lives. Through supportive caring relationships they can overcome negative influences in their lives and become critical. Through these same processes I have made myself critical. An important aspect of becoming critical is developing and demonstrating a capacity to speak.

Habermas deals with the ideal speech situation propositionally and, to my knowledge, offers no examples of how it might be practised in reality. Other educationalists have

drawn on Habermas's work but often they have followed his approach so closely that they also undertake it in a propositional manner, remaining at an abstract and theoretical level. Nonetheless, the idea of an ideal speech situation provides a model against which experience of real speech situations can be measured. Discourses within the classroom and indeed the computer room could provide one such comparison. The accompanying video and photographs of my students' participation in Internet based activities, and in particular their electronically mediated conferences with national and international leaders, illustrate attempts to provide everyday examples of ideal speech in practice (see video and photo evidence at www.ictaspoliticalaction.com/pages/comenius.htm; DVD at Appendix C). The conversational or dialogical nature of these interchanges can be seen as '…the encounter between men [*sic*], mediated by the world, in order to name the world' (Freire 1972: 61). So these encounters and the outcomes of the encounters are educational practices. They are educational practices which contribute to '…[a] humane collective life [which] depends on vulnerable forms of innovation-bearing, reciprocal and unforcedly egalitarian everyday communication' (Habermas 1985: 82).

Later in the thesis I will give a detailed account of my work with the Leaving Certificate Applied (LCA) class when we collaborated in building websites. I have referred earlier to one student who wished to build a website about 'World Wrestling Entertainment' and I will address this in more detail later. Initially I had doubts about this as a topic but I let him continue nonetheless. The forms of communications entered into by my students and me as their teacher as they collaborate in producing web based learning materials were clearly innovation-bearing in that they were new practices based on new technologies. The dialogue between my student, Keith, and me when he expressed his desire to design a World Wrestling Entertainment website for his project, is an example of a student making an assertion and turning that assertion into action and indeed self-reflective action. His teacher's, my, response is part of that dialogue when I listened to his arguments, put aside my prejudices and trusted him to carry out a worthwhile project. In the event my trust was rewarded when he went much further than producing a worthwhile web site and analysed his learning in relation to the development of the website.

When students and teachers joined together in a training programme, which I have described above, where the students and teachers could not be identified in terms of their institutional roles, I believe that they were involved in unforcedly egalitarian everyday

communication. Within these activities teachers participating as students and students participating as teachers were involved in vulnerable forms of communications because the practice challenged the norms within their society.

In the examples given above I show my engagement with the literature around the human condition, democratic participation and justice. This literature is largely propositional. I believe that my research shows a living realisation of the ideas contained in these key literatures and as such represents the incorporation of propositional theories into my living theory of educational practice that is grounded in a view of ICT as political action.

Control and power

I have described several activities which significantly changed my practice within school. Enabling students and colleagues to engage dialogically with each other through the medium of ICT is a substantial change from my original inward-looking classroom-based didactic practice. However, as colleagues and I attempted to change our practice in school we constantly encountered obstacles from authorities. It seems that attempts to promote life-affirming practices frequently lead to oppressive responses from the proponents of orthodoxy. The desire to sustain their positions can lead to organisational strategies of control. Within my practice I found that simple matters such as access to a photocopier became very important.

One particular attempt to modify my classroom practice involved photocopying worksheets for use in my class. But access to photocopying was strictly controlled. I was allowed to make 1500 photocopies per year. It seemed to me that school authorities had effective ways of controlling what I do without ever having to challenge me directly about what I was doing. In the event I photocopied the worksheets outside of school and proceeded with my plans. With coercive practices of this nature in place I decided that I needed greater understanding of issues of power and control. In order to advance my understanding of the reality that authoritarian forms tend to dominate in institutions and in schools in particular, I needed to engage with ideas around control and power. These are important themes in terms of understanding how the organisations I practise in function. Reconceptualising ideas around authority, power and control could be important to me in relation to developing new practices of learning, teaching and administration. In this section therefore I will engage with the ideas of some key theorists. I needed to engage in a process of

making the familiar unfamiliar and the unfamiliar familiar as part of a process of exposing those aspects of the existing social order which frustrate the pursuit of rational goals (Carr and Kemmis 1986: 130).

One of the activities that the LCA class had to undertake as part of the course was an IT task. In supporting my students through this task I pursued a balance between giving them the freedom to decide what they wanted to do and providing them with support so that they could achieve what they set out to do. This necessitated taking a dialogical approach to teaching class. Indications of the dialogical nature of class work with the LCA group can be seen in one of my students' task report when he says:

> 6 Sept 04: In our first class we had a meeting [about] what our Task assignment should consist of and what was expected of us. We discussed the plan and time value of the Task and that each student should come up with their own individual idea. Our IT teacher told us of past examples and how much credits that each got and which told us the level of work expected. The teacher, who is Mr O'Neill, told us that the Task idea should integrate with other subjects like, Religion, Maths and Art.

> (Sheridan 2004: 2)

This is an entry from Chris's journal which he maintained to support himself through the development of his task. This is the first entry and so relates to the initial preparation for the task. The journal entry fits into a web of enablement that supported Chris in his learning. I will deal with this briefly now but it should be more apparent in Chapter 5. The opportunity to take part in the LCA programme allowed Chris and his classmates to learn in an environment that valued experiential approaches to learning rather than didactic approaches. In his website (www.ictaspoliticalaction.com/webs/dan/index.htm), another student wrote:

> In school I am doing a course called Leaving Certificate Applied. It has helped me a lot to stay in school. It is a great idea for people who are not very academic in school. In LCA I have learned a lot of new things like computer skills and art. These skills I would not have learned doing the normal Leaving Cert. It is a great way to stay in school and concentrate on skills that you have.

> (Butler 2000)

Dan's comments raise questions about the relevance and appropriateness of the established academic Leaving Certificate and how it is taught. However, it is not just participation in the LCA but the type of participation that is important. Maintaining the journal, which I

encourage students to do while carrying out their tasks, enables Chris to plan and reflect on his work (Sheridan 2004). The journal entry shows how work is planned. Instead of traditional didactic processes of classes starting with instructions this class started with a meeting where I, as teacher, set out the parameters for the task but emphasised individual choice, where my students asked questions and spoke about their initial ideas for the task.

The short entries above, from a student's journal (Sheridan 2004) and another student's website (Butler 2000; www.ictaspoliticalaction.com/webs/dan/index.htm), show evidence of planning, self-direction, collaborative work, dialogical processes and a relationship between teacher and students that enables each to achieve their goals without coercion. These excerpts hold out the prospect of a different conceptualisation of authority and of power.

Generative transformation and the 'New Science'

Within my practice my experience of traditional models of teaching and administration is that they are controlling, limiting and closed. In attempting to theorise my work I seek models that are emancipatory, encouraging and open-ended to provide inspiration. McNiff draws on work by Bateson (1979; 2000), Bohm (1992,1995,1996), Wheatley (1992) and other writers in an area commonly referred to as the New Science in her development of the idea of generative transformation (McNiff 2000; 2002). She describes her awe at the capacity of living systems, resting on a finite number of components, to produce infinite numbers of novel phenomena (McNiff 2002: 56). She uses the example of infinite numbers of faces being generated from a small number of components: noses, eyes, mouths. To illustrate the infinite capacity for possibility she cites the development of an acorn into an oak tree. She uses these biological models as metaphors for personal development – 'We all have the potential to be more than we are' (*ibid:* 56). However she indicates that the realisation of this potential is contingent on politics not intruding and distorting those potentials. The potential that all people have for self-recreation and self-generation can be extended to the area of research. Research has this same capacity for regeneration. Working with these ideas McNiff has developed her personal theory of the nature of action research as a spontaneous, self-recreating system of enquiry. Within this model she is happy to work with systematic processes as described by other action researchers but she has difficulty if these processes are seen as linear or strictly sequential. She leans toward

an unpredictable model of enquiry where one can know where one is starting but where subsequent steps are far less certain and indeed may be totally unpredictable.

In my research I experience similar difficulties. While many models for research suggest the need for careful planning in advance, my research suggests a much more provisional approach to planning where it is possible to set general aims, but the implementation of plans has to be carried out sensitively as the unexpected so often happens. Such an approach is supported by research into science and particularly physics in the twentieth century. Capra (1992) refers to how Heisenberg's work on quantum theory has affected the nature of twentieth century scientific enquiry:

> In transcending the Cartesian division, modern physics has not only invalidated the classical ideal of an objective description of nature but has also challenged the myth of a value free science. The patterns scientists observe in nature are intimately connected with the patterns of their minds; with their concepts, thoughts and values. Thus, the scientific results they obtain and the technological applications that they investigate will be conditioned by their frame of mind.
>
> (Capra 1983: 77)

It appears that the claim is that the objective certainty that existed in science from the time of Newton and Descartes no longer holds. While Newton could predict the motion of the planets he would have had less success predicting the weather. This is because fluid motion, which follows the Navier-Stokes equation, is non-linear and therefore small changes in air currents can produce big changes in the weather (Gleick, 1994: 24). He would not have had such success in predicting the motion of an electron, or predicting the movement of share prices on Wall Street. Rorty (1989: 6) has cautioned that the fact that Newton's vocabulary allows us to predict the world better than Aristotle's does not mean that the world speaks Newtonian (cited in Jenkins 1995: 101). Propositional approaches could lead one to believe that the world spoke Newtonian. However, many processes in life are mathematically non-linear and therefore are far less predictable. McNiff (2002: 5) embraces the unpredictable and indicates that her one certainty is the need for uncertainty. This has resonances for my experience of practice. In my workplaces I find uncertainty and unpredictability is commonplace. So when I make plans in my classroom they often do not work out as I plan. Later I will describe in detail an initiative that I took with one of my classes which involved building electronic circuits to make lights flash and buzzers sound. I considered this a very liberating activity. One of my students asked me one day, "We're

not writing again, are we?" (see Chapter 3). What I saw as an interesting, fun activity he could only see as 'writing'. This unpredictability suggests that rigid planning is not very helpful but planning needs to be more contingent and responsive to events.

New paradigms in science have parallels in education and in educational research. From these ideas I draw confidence for my research. Many of my practices produce classrooms that appear to be less orderly and less predictable. So instead of students sitting quietly in their places there are students moving around, talking and making a noise. But out of this apparent chaos come well-designed web sites (www.ictaspoliticalaction.com/webs /lca2004/Default.htm), booklets to teach young people to play the guitar (www.ictaspoliticalaction.com/pdf/lca/guitar.pdf), meetings with leaders in the community (www.ictaspoliticalaction.com/pages/comenius.htm) and self-reflective journals (www.ictaspoliticalaction.com/pdf/lca/SoccerCoachReport.pdf) (see also Appendix C).

It seems irresponsible to take an approach to educational research that does not take into account the points above. Reason (1988) expresses such a view. He suggests three changes that are required in order to move to a post-positivist or post-modernist approach. He identifies these changes as participatory and holistic knowing, critical subjectivity, and knowledge in action. His argument for participation is a significant one in terms of educational research. It seems to me from what I have said already that the scientific approach does not bring about improvement in education but developing high quality relationships, and supporting people to achieve their goals does. Educational situations are extremely complex and to try to view the situation objectively when the teachers, administrators and curriculum developers are so clearly a part of the situation seems naive. Bohm (1995: 134) speaks of the impossibility of separating the observing instrument from the observed. Elements of complexity suggest that all those involved in the process must participate in the enquiry and be prepared to put their claim to knowledge to the test. This, of its nature, suggests that a holistic view must be taken (Bohm 1995: 134; Lomax 1996: 7; Wheatley 1992: 9). In my research I have taken this approach. My LCA students maintained their personal journals of activity in their tasks. The journals formed the basis of their Personal Reflection Task and are an important part of this research. For my part this is what I am doing – I am investigating my capacity to enable young people to think for themselves and act on their behalf.

McNiff's efforts to reconceptualise scholarship 'in order to develop an integrated form of theory that is capable of explaining the emergent integrated form of human interests' fits with the reconceptualisation of science that engages with the ideas of Bateson, Bohm and Wheatley (McNiff 2000: 137) and resonates with my reconceptualisation of ICT as political action. While traditional scientific approaches may not work well in the emergent areas of quantum mechanics and ecology, McNiff argues that 'traditional categories of human interest – technical, practical and emancipatory – need to become embedded within a newer inclusive interest that aims for the development of community.' McNiff's view of knowledge is that it is not something 'out there'. Knowledge is a transformational process within the knower: as knowledge transforms so does the knower. This process pushes the knower to extend their capacity to know. In the process, older forms of knowledge are embedded within newer forms.

Forms of the thesis

In writing this thesis I am confronted with a concern around linearity. Conventional practice around writing a thesis would suggest that I should do this in a highly organised linear fashion. However, my learning, which I will describe in this thesis, suggests that many matters are understood better as webs of connection where one can jump in at any node and proceed by learning what is relevant to you at that node rather than proceeding linearly from the start, to the middle and on to the end. At this point I think it may help you if I jump to a node which is not logically at the beginning of this thesis and explain one aspect of my learning.

I have learned that my learning proceeds from reflection on episodes of my everyday life, using insights gained elsewhere. I gain deep insights by relating stories from my experience and reflecting on them in the light of my other experiences, and of other people's experiences and theories. I believe that you need to understand that this will be my approach in presenting this thesis. So in the sections which follow I will provide vignettes drawn from my own or others' experiences and explain that vignette in the light of my learning, drawing on existing theory where appropriate. This approach is an aspect of my theory of practice which I will return to in more detail below.

The multimedia version of this thesis is presented as a publicly available website, which is also contained in the DVD attached as Appendix C. The design of the website draws

heavily on the ideas contained within the thesis. Central to these ideas is the 'web of enablement'. The multimedia thesis forms its web of enablement by using the web metaphor to enable others, students, colleagues and interested others, to engage with my research. If you wish to access the thesis from the point of view of the chapters a collection of links down the left side of the pages allow you access the thesis in this way (see Figure 1.1). The links offer you a more traditional linguistic approach and allow you to download a chapter of the linguistic form of the thesis. Links across the top of the pages are to the projects, like the Setanta project and LCA programme, and are the contexts for the actions. They are links to the contexts that captured my data. Within these links you can directly access students' websites, the booklets produced for their tasks and their task reports. It is in this area that you gain direct access to videos of students engaging with each other and with political leaders.

Another set of links at the left of the pages represent the key themes of the thesis e.g. knowledge base, political action, communities of practice. I believe this is a fundamentally different way of writing a thesis and engages with many of the issues raised by people like Eisner (1997). It is not just a matter of taking the linguistic thesis and putting it on the internet with links to a few documents. It is offering you a different way of looking at the thesis. You can jump in and out of this thesis without reading it from end to end. If the piece that catches your attention is 'communities of practice' you can start from there and see where it takes you. Emphasising the outward looking inclusive nature of the thesis are links to some key external web sites like Jack Whitehead's Action Research network and Jean McNiff's website.

Fig 1.1– Homepage of the multimedia thesis at www.ictaspoliticalaction.com

The dialogical nature of the research is emphasised by the online forum. The forum is a space for discussion. You can login and comment on the thesis and others will be able to comment on your comments. So the thesis in itself is opening itself to engagement and dialogue.

Throughout the site there are links to other material. For example, in the LCA section there is a link to a website produced by students taking part in LCA. One is to a website created by Mark McKay in 2001. Mark produced a website telling other students about LCA. He was focusing on providing information. So, for example, he provides a description of the subjects that can be taken on the LCA programme.

Principles of good design are important in developing a website. Those principles are used in developing this multimedia thesis. Among the principles of design is the idea of carrying a theme throughout the site and this is often accomplished, in part, by the use of a logo which assists in branding the site. Often variations of the logo are used in different parts of the site. Such an approach has been taken with the multimedia thesis. But a novel approach has been taken to developing the logo. A web site analysis tool has been used to examine the website and to create an image representing the structure of the web site.
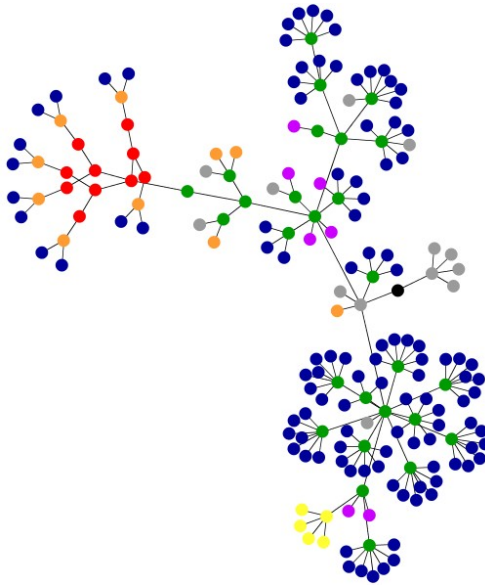
56

Fig 1.2 – Image representing the website www.ictaspoliticalaction.com and therefore representing the thesis.
19 September 2007

This may seem like a simple choice of logo. But the choice is important. The different colours and lines in the logo represent different elements of the website and therefore of the thesis. The development of the logo is a combination of physics and art to produce an unusual representation of the website and the thesis. One of the unusual elements is that it graphically shows the web of connections within the web site. You can see within this that the different parts that make up the website – which make up the thesis – are a little like fractals. Various parts are not the same but there are similarities. The image makes up the whole thesis but the thesis is made up of component parts which fit together in various ways. Although the components are the same throughout the website they produce something different in various places. This is a living realisation of Bateson's idea of patterns that connect (Bateson 2000). The pattern repeats itself, the situations are different, the realisation is different. The pattern is the constant – it is a novel creation. All the parts of the thesis connect to make up the whole as all the parts of the image connect to make up the whole. Neither the thesis nor the image is an isolated event; all the parts are linked to each other dynamically. The image is not static. Every person who contributes to the thesis by interacting with the website enables the image to change. The thesis shows the types of patterns that are needed to connect. The multimedia thesis challenges the notion of how a thesis works and provides a completely different model of the thesis.

Within the thesis the video clips and computer multimedia artefacts provide the possibility of opening the window on learning undertaken and understanding gained by people that cannot readily be represented in a propositional form of words and numbers. This is not a rejection of the form of words and numbers. Word and numbers appear regularly throughout the thesis. Rather than being a rejection, it is a recognition that words and numbers sometimes elucidate and sometimes obscure. In some cases the use of multimedia artefacts enable the viewer 'to be enveloped' after only a few seconds. The multimedia approach used within the research and the multimedia approach to producing the thesis is recognition of the variety of ways through which our experience is coded. Eisner (1997: 7) reminds us that the selection of a form of representation affects what we see. I believe that the multimedia representation provides a richer representation than would be provided by words on a page alone. Multimedia representation appeals to a variety of intelligences and acts as a way of activating wider ranges of intelligences (Gardner 1993; Gardner and Hatch 1989). The honesty of the behaviour, of the reactions, of the emotions in the multimedia representations provides a sense of authenticity. Within the data provided in the thesis we can come to know the people involved and we will see them as whole people, unique individuals with contributions to make. This level of particularity and dimensionality are conditions of things being 'real'. The multimedia representation approaches 'reality'.

Among the perils of alternative forms of representation is the lack of precision offered by alternative forms (Eisner 1997). This leaves them open to the challenge of ambiguity, but ambiguity is a potential source of insight. The peril of ambiguity and the promise of insight can both be addressed by offering data to public critique.

I will pursue these ideas and examples of denying my values in my practice in Chapter 2. In the following chapters I will address how I have attempted to bring my practice into line with my values.

A living theory of learning

Having identified myself as a living contradiction when my values are denied in my practice, I set about undertaking a personal action enquiry. This follows the form set out by Whitehead (1989; 1993) which seems like a highly structured systematic process of observe, describe, plan, act, reflect evaluate, modify. I subscribe to the general idea but I find, in practice, that conducting an action enquiry is a less coherent, messier process.

McNiff (1988: 43; 2002: 57) questions the capacity of existing models of planning, acting, observing, reflecting, re-planning to adequately express the steps required in carrying out an action research enquiry. She suggests that the model needed to have the capacity to show multiple problems at the one time. She provides a three dimensional 'spiral of spirals' which suggest secondary concerns being addressed without losing sight of the central concern (McNiff 1988: 45).
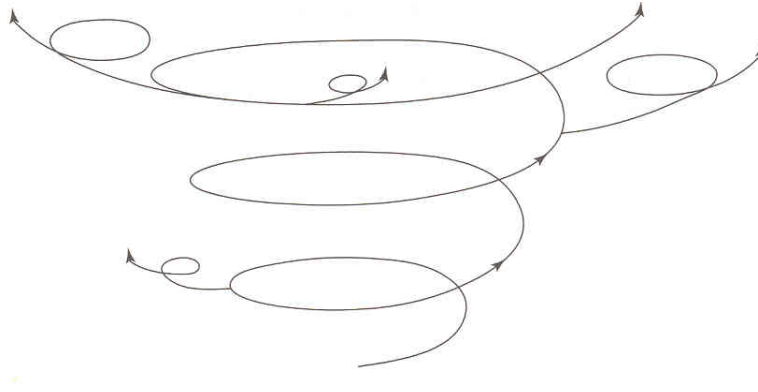
Fig 1.3 – The visual which would represent the action is a three dimensional spiral of spirals
   (McNiff 1988: 45)

In the event I have carried out many spirals of enquiry (McNiff 1988: 45; 2002: 57) and I lean toward McNiff's (2002: 56) description of a spontaneous, self-creating system of enquiry. I don't see my research as a discrete piece of work with a start and a finish; rather it is a complex web of enquiries spread over time and space. To assist you let me describe a portion of one of these spirals:

- I experience a concern where some of my students are not successful in the five subjects usually regarded as a minimal pass in the Leaving Certificate.
- I hear that there is a programme that these students could follow that could be more suited to their learning styles.
- I join with colleagues in evaluating the new programme.
- I work with colleagues to devise an implementation plan.
- I support colleagues in securing the agreement of school authorities in introducing the programme.
- I undertake to teach information technology on the new programme.

This could be the logical end to an action enquiry cycle but it is the start of a series of action enquiry cycles that took me through six years of teaching the LCA programme. While involved in this series of enquiries I was at the same time involved in carrying out a

spiral of enquires which supported the Setanta project, Comenius project, North/South links and Action Learning projects. The action enquiry spirals for each of these overlapped with each other and with other enquires which are not accounted for in this research report. I believe I am living out a generative transformational evolutionary process which McNiff suggests is beyond words (McNiff 2000: 56). The interwoven, enfolded process is difficult to communicate in ordinary words.

In reflecting on the complex nature of my research I find it useful to compare it to fractals. Fractals are complex geometric shapes which in their familiar form are attractive coloured geometric graphs. But fractals have properties that are unusual for geometric shapes:

> They are generated by relatively simple calculations repeated over and over again, feeding the results of each step back into the next.
>
> They are infinitely complex: they reveal more and more detail without limit as you plot smaller and smaller areas.
>
> They can be astonishingly beautiful when computer displays are used to animate the images.
>
> (Tyler *et al*. 1991: 3)

My research follows a model of carrying out relatively simple steps, the steps of an action enquiry, repeated over and over again with the outcomes of one step feeding into another. It is a constant, daily, process of examining my practice, imagining approaches that fit better with my values and modifying practice. In imagining new approaches I incorporate insights gained along the way.

This makes the process complex, and examining any particular detail shows more and more details. You may have noticed that when I drew on Chris's and Dan's reports for their LCA tasks the analysis was rather onion-like in terms of the layers within layers that can be revealed. The multimedia representation of this research will be beautiful and much better at representing the complexity of my research than words alone.
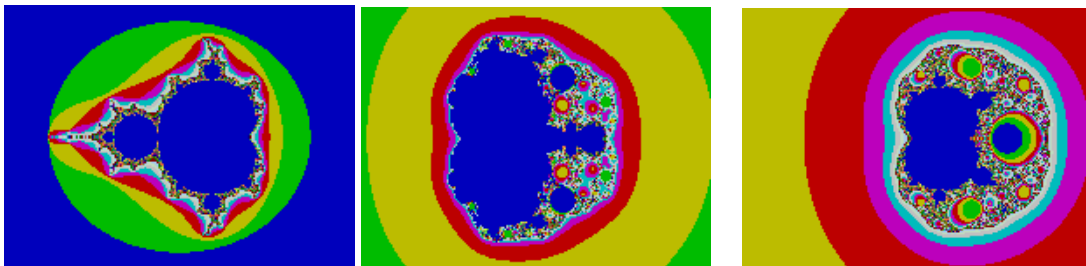

Fig 1.4 – Fractals from the Mandelbrot set generated using Fractint v. 18.21
(http://spanky.triumf.ca/www/FRACTint/fractint.html)

While carrying out my spirals of personal action enquiries I realised that the same tension that Arendt identifies between the role of the spectator and the role of the actor is evident in much research into education (Coulter and Wiens 2002). Frequently research into education follows the social science model in that the researcher is external to practice. In other words the researcher acts as a spectator and observes practice. Additionally, the account of the research is the researcher's account. The participants in the research are the objects of the research. Action research, on the other hand, appeared to provide a model that I could be more comfortable with. However in some modes of action research practitioners carry out their practice, observed by a researcher, often from the university. It is the role of the researcher to observe, describe and explain the research. Those taking part in the research are again objects while the researcher generates the theory.

This model of research did not appeal to me as I believed that I was perfectly capable of observing, describing and explaining my practice. From my work with my students I was also aware that they were perfectly capable of observing, describing and explaining their practice. On reading Whitehead (1993), I began to realise that I was in fact generating my living theory of education and in fact my students were doing the same. I will provide the evidence that grounds this claim in Chapters 5 and 6.

This thesis addresses issues regarding the quality of action research accounts by providing not just a description of workplace learning but also explanations for my research. While doing this I develop my living theory of learning which is grounded in my practice. While my living theory of practice incorporates propositional knowledge it is based in my lived experience of being a teacher, co-ordinator of ICT, consultant and person (Evans 1995: 132). As part of showing the quality of this work I articulate the standards of judgement that I will use to evaluate my work. I will make these standards of judgement available to the wider educational research community within this thesis and publicly at www.ictaspoliticalaction.com. This will enable my standards of judgement to be assessed so that agreement can be reached on how my account should be judged in its own terms. I will pursue these issues of validity and quality in Chapters 6 and 7.

Summary

In this chapter I have set out my ontological values of justice and freedom. My values are underpinned by a view of people's place in the world and their right to determine their

place in the world. The view is centred on individuals as actors and not spectators. This view is carried forward to how I see education and educational research. I have placed these values within the conceptual frameworks of justice, control, freedom, generative transformational forms, living theories and alternative forms of representation. However, within my practice I frequently find myself in situations that deny these values. In particular the authoritarian nature of my school and the demands of change within NCVA result in people not being treated as if they have a unique contribution to make. Drawing on my ontological values and their underlying framework I cannot see myself as a spectator in my work as teacher and administrator and instead I am impelled to take action to bring my practice in line with my values. So I decided to act, with others, to find ways of teaching and administration that allow people to feel honoured and valuable. As the core of my work in school and NCVA is within the areas of ICT I have framed my research question in that context and I am asking, 'Can I reconceptualise ICT as political action?'

This thesis is an account of my attempts to bring my practice in line with my values. While doing this, I provide explanations for my practice and in this way develop a living theory of practice. I will enable this theory to stand as high quality theory in achieving originality, significance and rigour by presenting my criteria and standards of judgement to public scrutiny and assessment in order to test the validity of the knowledge claims of the thesis.