

Where is Ireland in the Global Information Society?

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Abstract: Ireland's current position within the "global information society" depends upon the previous history of industrialisation by invitation. The paper begins by outlining this experience and then suggesting that it has created two major areas of political choice. Education can remain defined by the immediate needs of "industry", or it can become the key component of a national system of innovation. Social policy issues raise the question whether "the information society" in Ireland will be developed according to European Union or US models. The paper concludes by claiming that the social structure of the "information society" is not a pre-ordained development — the pattern of development can be influenced by conscious political decisions.

I INTRODUCTION

The new image of Ireland is that of the *digital island* or even of the *intelligent island*. Ireland — or at least the *Republic of Ireland* — combines high technology manufacturing and services industry with a vibrant cultural renaissance. The location of the *Ireland Europe and the Global Information Society* conference in Temple Bar, in the Film Theatre and the ArtHouse, in the middle of Ireland's rejuvenated city centre, exemplified this new situation. The success of the Celtic Tiger, so it is claimed, rests in part upon Ireland's successes in the information technology area. It is therefore important that social scientists provide some calm analysis of the current situation. This is perhaps particularly important for sociology, the discipline which claims to know about "society" but which seems to have

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contributed remarkably little so far to Irish debates on the “information society”.

This paper begins by arguing that far from the global information society abolishing national differences, it highlights them, and Ireland’s relative success is precisely the story of its national specificity. Some of these features however are rather double edged, and I want to focus on two of them. First, our much vaunted education system both as a producer of “qualified labour” and as a source of technological innovation; second, the position of the Republic of Ireland between the USA and the European Union. As we shall see, both features are increasingly raising rather awkward political choices: the Celtic Tiger is going to have to decide what sort of lair it has and where this lair is going to be.

This paper is also in part a response to the first attempt at an Irish “information society” strategy: the document *Information Society Ireland: Strategy for Action* (ISSC, 1997). Because this is dealt with by other contributors to this volume, I have not engaged in a detailed critique of the term “information society”. It should however be taken for granted that I understand the term as an image or a vision rather than a clearly defined and empirically validated social science concept. Furthermore, while fully accepting that a society which includes information and communication technology (ICT) as one of its core technologies is different to one that does not, I also assume that many of the key concerns of conventional sociology (the precise relationship between market and non-market institutions, social inequality, even gender relationships or skill) would seem to be much less “determined” by the technology than its proponents claim. Consequently, we should perhaps talk not of information society but of information societies. And in that context, what sort of “information society” is developing in Ireland? Indeed, what sort of “information society” could develop in Ireland?

II THE SUCCESS OF IRISH INDUSTRIALISATION BY INVITATION

Any specification of Ireland’s position in the “global information society” has to start from the particular success story of Irish “industrialisation by invitation” — the strategy since 1956 of achieving economic growth by foreign investment.

Although the economic benefits of this policy have often been controversial, it is clear that Ireland has been remarkably successful in attracting mobile investment compared to any other peripheral area of Europe. The reason for this success lie not just in the favourable tax regime and generous grants, but also in a cluster of socio-political advantages. Compared to the regions of England, and even Scotland and Wales, Irish political independence ensured

that regional policy was also national policy. The main source of foreign investment in manufacturing industry was Continental Europe and the USA, so that "opening up the economy" did not involve subordination to the historic colonising power. The very weakness of the industrial base ensured that there was no substantial economic pressure group threatened by the new strategy. In the 1970s and early 1980s, when Irish trade unions still had major political power, the foreign sector offered substantially higher wages and single union recognition in exchange for abdication of traditional shop floor control (Murray and Wickham, 1982). Slightly less obviously, the new manufacturing industry also involved a social greenfield site. Foreign industry occupied an ideological and institutional space that was uninhabited: new institutions were created, but old ones were not challenged (Wickham, 1984). As the next section will show, this situation has now changed.

One frequent criticism of the policy was that the foreign industry lacked linkages to the local economy. This criticism was articulated from all points of the ideological spectrum. The debate was dominated by economic concepts, so linkages have usually been only defined in economic terms (the proportion of inputs purchased in Ireland) and at most in terms of the spin-off of new indigenous companies from within large multi-nationals. Such a narrow focus under-estimates the impact of foreign-owned industry on the economy. Most of the original plants were primarily assembly operations, yet as studies elsewhere have shown, the management of such plants is hardly simple (Lester, 1982). However low grade assembly the plants may have been, they required managerial skills. Given that, with the exception of Japanese-owned firms, these plants were run by Irish managers as soon as possible, even an assembly operation involved the creation of indigenous management skills. As the managerial labour market developed through the 1980s, these skills became rooted in the local economy. This labour market was stimulated by the fact that "churning" of firms was particularly pronounced within this sector. Multinational plants tended to have a clear life cycle: plants were opened, expanded, and then declined and closed. Growth in aggregate employment masked much larger numbers of new jobs created while old jobs were lost. At the same time, although linkages between the multinationals and indigenous firms were low, linkages between such branch plants increased, often on the initiative of local managers (see Wickham, 1989).

Furthermore, by the end of the 1980s the occupational profile of electronics manufacturing had changed. Over time the relative weight of qualified employees within the work-forces increased as firms automated production processes and took on more ancillary activities which required more skilled labour than production itself. At the same time, new entrants tended to have

a relatively higher skill profile than existing firms. While at the beginning of the decade the skill need was for technicians, by the end it was for graduates in both electronics engineering and computer science (Wickham, 1988). The rapid expansion of these areas in the universities laid the basis for the subsequent software industry. As O’Riain (1997) has shown, this *unlike the hardware sector*, has a significant number of indigenous firms. Even more intriguingly, the software sector seems to have a much greater institutional “thickness”, that is to say, there are more formal and informal links between firms and between firms and educational institutions.

The other major components of the Irish economic presence in the global information society are internationally traded services, ranging from call centres to international financial services and sections of the growing cultural industries (film, music). Almost without any public debate, “industrialisation strategy” has become a strategy for economic growth in the epoch of the weightless economy. At the more conventional end the usual incentives apply: tax breaks and grants, access to the European market and the allegedly highly skilled labour force. Yet while these are important in all areas of the culture industries, there is also continual reference to something rather more intangible: “the creativity of Ireland” (ISSC, 1997, p. 42). The hope is continually articulated that here we have reached the ideal marriage of God and Mammon. At last Ireland can make money out of its infamous spirituality, or to be more sociological, its culture can be successfully commodified. And this happy unity of opposites might even occur in the labour market: Ireland has the unique opportunity to combine its new technical skills and with more traditional cultural skills to lay the basis of an indigenous multi-media content industry. In the age of globalisation what can best be marketed is the specificity of place. And this paradox can be used to illuminate the last forty years — in an age of internationalisation and then globalisation, Irish success has been the utilisation of the particular features of Ireland — or at least of the Republic of Ireland.

III EDUCATION: SKILL PRODUCTION AND INNOVATION

“Ireland — powered by people” used to be the slogan of the IDA advertisement that greeted visitors at Dublin airport. More mundanely, a recent government minister’s election leaflet could claim without any fear of contradiction that the Republic’s education system is “the best in Europe”.¹ Irish sociology of education has failed to interrogate such claims. We have useful studies of inequalities of class and gender in relation to access to

1. “Newlines” leaflet issued on behalf of Finance Minister Ruari Quinn by Dublin South East Constituency Labour Party, Spring 1997.

education, but sociological studies of the relation between the content of education and economic growth are conspicuously absent. This section of the paper therefore raises some questions about the relationship between education and Ireland's status as an intelligent island ...

Formal education is particularly important because of the Republic's unusual demographic structure. Compared to other European countries it has a relatively young population and a relatively young labour force. So long as education is understood as something which happens to people before they enter the labour force, then achieving any particular level of education is going to be relatively more expensive in Ireland than elsewhere, simply because a relatively higher proportion of the overall population will be involved. Conversely however, because the labour force is also relatively young, a higher proportion of the work-force is renewed every year. Expenditure on education therefore shapes the whole work-force more than in other European countries.

These demographic factors make Irish education participation rates especially important. Over the last thirty years Irish rates have first caught up with and then overtaken British rates, but also those of some other countries. In comparison with other EU countries Ireland is about average in terms of the proportion of the age cohort completing secondary level education and well above average in the proportion of the age cohort gaining a third level qualification. Furthermore, within third level we have an unusually high proportion of students studying science and engineering. And finally, although this is far more difficult to quantify, educational standards do seem to be relatively high. In the most recent international maths and science performance test (the *Third International Maths and Science Study*) Irish school students aged 13 scored higher than both the US and German school students (*Economist*, 1997; OECD, 1996).

Irish graduates would seem to compare favourably with those from other European countries. Entry to third level is selective, and Ireland has avoided the experience of those continental countries where passing a school leaving exam confers an automatic right to university entry. Consequently, Irish universities have, so far at least, avoided the disasters of Italian universities.

These achievements should not be trivialised. Perhaps the most important is the one least noticed. Cultural commentators such as Professor Joe Lee have long lambasted the Irish professional classes for their lack of entrepreneurial drive and their obsession with entry into secure professions (law and medicine) rather than science and technology. Clearly over the last thirty years this very British pattern has been eroded. Equally, the expansion of technological education has undoubtedly made Ireland much more attractive for various forms of mobile investment, and O'Riain is probably

correct to term the decision to expand technological education in the 1980s one of the most successful policy decisions of the 1980s (O'Riain, 1997).

Yet there is now a risk that public discussion becomes convinced by our own national marketing hype. Certain aspects of education and training in Ireland do not quite fit with this success story.

The "information society" issue immediately highlighted the low level of provision of computing technology in most areas of Irish education. At primary level for example in 1996 only 65 per cent of national schools had any computer at all, and only 26 per cent had acquired these with Department of Education funding (ISSC, 1997, p. 38).² Research undertaken for TCD's Computer Applications for Social Sciences (CASS) programme has shown that at third level the number of PCs per student range from a high of 1 PC per every 10 students in DCU and UL to a paltry 1 to 30 in TCD, all way below the Council of Europe recommended level of 1 PC per every 3 students (ISSC, 1997, p. 74). Typically, the recent government White Paper on education discussed the Irish language and equality of opportunity in great detail, but devoted not a single sentence to information technology. And this lack of strategy pervades the entire system. The CASS research has shown that not a single university computer facilities manager is able to identify a strategy for IT provision for undergraduates or identify the forms of usage of existing equipment.

In terms of the school system the introduction of free secondary education in 1966 was in one sense remarkably regressive. Because it simply made access to the academically oriented system easier, rather than changing the system itself, it ensured for the next thirty years Irish education would be marked by continual "academic drift" (NESC, 1985). The high prestige ends of the curriculum are exclusively those that are oriented towards formal knowledges as required for university entrance, rather than vocational and workplace relevant knowledge. The only criterion of educational success is entrance to third level (the annual Leaving Certificate hysteria), and like a Japanese system this focuses on rote learning (hence the possibility of grinds culture) and this skews the content for all secondary level. Compared to Holland or Denmark for example, Irish school students are extremely unlikely to take vocationally relevant courses (NESC, 1993).

In Japan the academicised rote learning of secondary education is counter-balanced by the Japanese employment system with its enormous amount of

2. Provision should not be confused with use. The Department of Education's *Information Technology Integration Project* has shown that there is little relationship between the number of computers available in Irish schools and the extent to which school students use computers. Both ITIP and international research show that the major use for computers in schools is word-processing, often simply of documents that have already been written out in long hand!

in-firm training. By contrast Ireland's "Japanese" secondary system leads to a "British" in-firm training system (i.e. no training at all).³ Irish firms (and this includes firms in the foreign owned sector) spend 1.2 per cent of sales revenue on training, while the European Union average is 3 per cent (ISSC, 1997, p. 39). Equally most FÁS expenditure is concentrated on job creation schemes which do nothing to upgrade the skills of those already in work. Its main intervention for those in work is the Training Support Scheme, which as of 1996 was absorbing about 1 per cent of its total budget. Research for the NES (NES, 1993) confirmed the impressionistic argument of the *Culliton Report* (Industrial Policy Review Group, 1992) that Irish industry suffers from the British disease of a low skill equilibrium. In other words, faced with a work-force with low skills, firms concentrate on products and processes that do not require high skills, so that there appears to be no need for more education and training (Finegold and Soskice, 1988).

The problems such an approach creates were exemplified in 1996 by the sudden crisis of skills for call centres. One of the major reasons why so many call centres have set up in Dublin is the labour force. This is not because of the language skills of Irish school leavers, which are very weak (and demand for Irish in global call centres is not very high). It is relatively easy to find Continental language skills in Dublin because, as a fashionable European capital, Dublin has a relatively large transient population of Continentals (Cornford *et al.*, 1996). Whatever else Irish secondary level is good for, it clearly does not produce such global skills.

And at third level too there are real problems. During the 1980s the immediate consequence of expanding engineering provision at third level was a rise in emigration. It appeared that the more money the government spent on education, the more graduates there were to emigrate. And within this general trend, the higher the expenditure on a particular course, the more likely those particular graduates were to emigrate (Wickham, 1992). Levels of graduate emigration are under-estimated. The only reliable data source, the Higher Education Authority's annual *First Destinations of Award Recipients* survey, records the employment of graduates nine months after graduation. However, empirical research within both accounting and engineering firms (Hanlon, 1994; Wickham, 1992) has shown that many graduates take employment within Ireland as a stepping stone to subsequent emigration.

In many ways firms' human resource management practices encourage emigration. In some areas of the Irish economy a spell abroad is seen as a

3. These are of course simplistic stereotypes. They are also slightly out of date. British in-firm training appears to have been rising rapidly in the last few years; Japanese firms can decreasingly offer long-term employment which may in turn undermine their ability to provide continual general training in the workplace.

desirable qualification for promotion. Tacitly therefore firms encourage ambitious employees to leave the country. In addition, because firms tend to do little to develop the careers of even their most qualified personnel, ambitious graduates are likely to find that Irish employers cannot offer them the career prospects their education and qualifications have led them to expect. So high technology emigration coincides with recurrent skill shortages and indeed skill panics. For example, *Ireland Information Society* warns of emerging skill shortages in computer software.

Within current policy debates "the manpower needs of industry" are understood in Ireland simply as those skills which firms consider they immediately require. There are rather obvious problems with such an approach. Almost of necessity, firms cannot predict skill needs very far ahead — UK Department of Employment research estimates 18 months as the longest time horizon (Brown and Scase, 1994, p. 174). Furthermore, if education is understood as directly applicable skills, this ignores that there are potential conflicts of interest between the firm and the individual (Murray and Wickham, 1983). At its simplest, the individual wishes to maximise his/her position on the labour market, which means the individual wants a skill which can be utilised by different employers. By contrast, employers will prefer skills that are locked in, thus ensuring that their investment is not poached by a competitor.

The result appears to be that Irish education tends to be either too general or too specific. For example, the education of electronics engineering in the 1980s led graduate engineers to regard themselves as over qualified for their employment in Irish firms in production engineering. Consequently, one reason for emigration was that firms were not able to provide them with access to the research work (R&D) for which they believed their education had fitted them. By contrast, universities and RTCs have become increasingly willing to adjust or develop courses in lines with the needs of industry, but these needs tend to be articulated by single firms who simply instrumentalise third level institutions to carry out training in the particular skills they require. In neither case are firms under any pressure to carry out general training themselves. Accordingly, as McGovern (1995) has shown in some detail, high technology firms in Ireland operate a slash and burn approach to Ireland's much vaunted technological educational system. Rather than training and developing their human resources, they use up the latest products of the educational system, secure in the knowledge that these can easily be replaced by next year's batch of graduates.

Claims that Ireland is now a "learning society" look rather absurd when confronted with the reality of university research within the state. Almost alone amongst OECD countries, the Irish third level budget provides no

resources at all specifically for research, the Irish government spends less on third level research as a percentage of GNP than any other OECD country. And as the recent CIRCA report also documents, this organised disinterest in research pervades the third level system. Not only is there no national system of research evaluation, not a single university senior manager is able to identify his or her university's research priorities or even identify its research strategy. Irish scientific researchers, just like Irish technologists, have to emigrate to build a career. CIRCA reports a US professor:

From time to time, one encounters Irish scientists of considerable talent — usually based in some other country. I suspect that one could assemble at least one more first class university in Ireland if only one could repatriate the best people who have gone abroad for the faculty (CIRCA, 1996, p. 37).

Certainly Irish universities do undertake research. Irish universities now receive substantial research funds from industry and above all from the European Commission; on the basis of bibliometric measures Irish academics are individually as productive as the OECD average. This paradox would seem to suggest that an Irish national research strategy is not necessary. It suggests that Irish research is doing very well thank you even though — and perhaps precisely because — it is not receiving any government funding. We have been intelligent enough to build an intelligent island on the cheap!

The Irish situation can be understood through theories of *national innovation*. According to its proponents (Lundvall, 1992; Edquist *et al.*, 1997), a national system of innovation is a social network that links firms, government, voluntary institutions and educational organisations. The theory assumes that innovation is fundamentally an incremental process stemming from the interaction of producers, suppliers and education and training institutions. In other words the theory stresses “learning (and innovation) by doing”; it completely rejects any “technology push” argument that innovation starts with scientific discoveries in pure research which then move “down” towards the economy through technological applications. If the national system of innovation is strong, then not only are firms and researchers closely linked, but the links between firms ensure that firms can innovate through learning from their suppliers and customers. This in turn means that innovation is “path dependent”. Innovation does not follow a single pre-determined path, but instead develops in a particular trajectory shaped by the specific interaction in a specific institutional context.

The national system of innovation approach is closely linked to network theory and other developments within the sociology of economic activity. Writers such as Granovetter (1985) have stressed the *embeddedness* of

economic action: market relations always occur within an institutionalised context; market exchanges are potentially themselves also social relationships in that much else can be exchanged apart from what is simply bought and sold; when the market relationships are long term and involve a high level of mutual trust, then these relationships are potentially rich in information. For example, scholars who have studied the resurgence of small firms in the 1980s stressed the way in which in some countries networks of small firms formed industrial districts, comprised of either "republics" of small firms as in the "Third Italy" of Emilia-Romagna or "kingdoms" of small firms dominated by a single large firm as in Japan. Quite contrary to Anglo-American ideas of the small firm as the creation of the individualistic entrepreneur, such analysts stress the importance of co-operation and trust between firms (Howard, 1990).

From this perspective a particular topography of inter-firm linkages does not guarantee the content of the linkages. In other words, the existence of either a republic of small firms or a kingdom of small firms grouped around one large firm does not itself ensure innovation. Equally, long-term relationships between firms need not be trusting and can stultify rather than stimulate innovation. And when such networks are the locus of innovation, their very strength can often be their weakness. Networks stimulate innovation incrementally along a particular technological trajectory (Edquist *et al.*, 1997); this means that they are unlikely to be the locus of fundamental innovations; they are very good at improving existing products and processes, but rather bad at radical invention. Just as Kuhn argued that scientific breakthroughs have to come from outside the social system of normal science, so major innovations come from outside firm networks. For example, Glasmeier (1994) has shown how the success of the Swiss watch industry in the Jura lay in the thick network of mutual subcontracting of a cluster of small firms with continual innovation. However, this innovation was occurring within the technological paradigm of the mechanical watch; the paradigm shift to the electronic watch occurred outside their industry.⁴

From this perspective, Ireland has been characterised as having a weak system of national innovation. In his study for the NESC Mjøset (1992) argued that the poor innovation record of Irish indigenous firms must be explained in terms of the innovation system within which they are located. Irish indigenous firms have weak links both to each other and to education and training institutions; innovation such as it is occurs within the foreign-owned sector. However, Mjøset is a curiously old fashioned study: he

4. According to Glasmeier the Swiss were the first to develop an electronic watch, but the industrial structure based around the mechanical watch ensured that they were unable to move quickly into volume production.

concentrates entirely on manufacturing industry and also does not really analyse the nature of the foreign-owned sector. This perspective is taken over by the government White Paper on *Science, Technology and Innovation* (Government of Ireland, 1996) which again concentrates solely on the indigenous sector. This ensures that some of the problems now developing in the politically powerful foreign owned sector are not addressed.

Given that Irish third level institutions do have close links to industry, the idea that the country has a weak system of innovation may appear surprising. The problem lies in the nature of the linkage. We have already seen above that there is no government funding for basic research. The recent White Paper justified this by assuming that the only economically relevant research is applied research and instrumentalises science policy as part of the needs of "industry". Since there is no tradition of any social studies of science within Ireland, it is hardly surprising that there is little social scientific analysis of science and technology research in Ireland (see Cooper and Whelan, 1973; Yearley, 1989). Impressionistically, it appears that Irish universities have used European Union funds to carry out their basic research, and have been forced into an opportunistic dependence on largely foreign-owned firms for further funds. The problem here is that such research is oriented to the immediate competitive needs of firms; there is no institutional system that can push research towards either pre-competitive research or even more importantly, towards applied research that will benefit a series of firms within Ireland. The relative under-development of an indigenous innovation system can be seen in the bibliometric data: Irish researchers are as likely as colleagues abroad to joint author papers (joint authorship is a sign of collaboration), but they are less likely than colleagues elsewhere to joint author articles with other *Irish* authors (CIRCA, 1996). In other words, Irish researchers' networks lead outside the country; their research bears relatively little relationship to activities within Ireland.

Irish education has contributed to the Irish success story by its good general standard and high participation rates in both secondary and tertiary levels. Furthermore, the very weakness of any national system of innovation has made it easy for some small sections of the educational system to be instrumentalised for the specific needs of individual firms in the foreign sector. Beyond that, the claim that Irish education is "the best in Europe" is absurd hype.

IV IRELAND IN EUROPE, VERSUS EUROPE, VIRTUALLY ANGLO-AMERICAN?

For recent decades, the linchpin of Irish success has been that the Republic has been the point of entry for US firms entering the European market. The

development of Europe as a single market has been crucial to Ireland's attractiveness to US investment. Ireland has been where Europe and the US could meet; Ireland could move away from Britain and become closer to both "Europe" and the USA. However, this geo-political position may soon be subjected to novel tensions, and one point at which they may surface is in relation to information society issues.

From a Continental perspective, in particular from a German perspective, "European" and "Anglo-American" capitalisms present different models of socio-economic development. In summary, the European social market economy recognises the existence of diverse interest groups, regulates the labour market to protect employment conditions, provides funds for enterprise through the banking system. By contrast, Anglo-American capitalism gives little role to organised interest groups such as unions, has a flexible labour market and relies on the stock exchange for finance.⁵ The Anglo-American model promises employment at the cost of widening income inequality, at least to date however the European model protects the conditions of those in work at the cost of high unemployment. Most fundamentally of all, the European model accepts both the state and civil society as areas of social life which are not and should not be organised on market principles. The "market" is not seen as bad or wrong, as in socialist theory, but as only one component of social and economic life.

Both models are of course an over-simplification of complex empirical realities. Furthermore, in the aftermath of the New Labour victory in the UK, it is by no means certain that the "Anglo-American" identity will be as self-evident as in the long years of Conservative rule. Will New Britain be a Trojan horse for US conceptions in Europe? Or will "American" and "European" versions of capitalism be finally located on different sides of the Atlantic?

The dominant vision of the "global information society" is clearly closely related to the American model. It is often pointed out that the term *global* is hardly appropriate. Large sections of the globe's population are completely outside the informatised world. Recall for example that there are more telephones within the M25 London orbital road than there are in the whole of the continent of Africa. But what is less obvious is that the term *society* is also a misnomer, for in the dominant vision of the "information society" ICT enables a further marketization or commodification of relationships. Of course, the idea that all relationships can be reduced to market relationships (Thatcher's comment that "there is no such thing as society") is a fantasy only found in economics textbooks; as a political philosophy it is a dangerous

5. The clearest statement of this position is probably Albert (1993).

utopia, as chiliastic as the marxist fantasy of a complete egalitarian society. This is because even the most complete marketization requires social institutions (not least those involved in the monetary system) to regulate it.

Currently, the conventional wisdom is that ICT broadens the reach of the market. Thus Bill Gates claims that the Internet will produce a frictionless market, in which perfect choice and perfect information are available to all. For him this will be a “shopper’s heaven” (Gates, 1995, p. 158). While such a linkages now appears self-evident, it is noteworthy that the early proponents of the information society, such as Daniel Bell, linked advanced technology with the necessity of planning as opposed to the market.

Serious social scientists should therefore be rather sceptical of arguments, such as those of *Information Society Ireland*, that create an unproblematic isomorphism between information technology and the market. And when it is claimed that the information society will be more egalitarian and democratic than previous forms of society, they should make the rather elementary point that the current expansion of ICT has coincided with growing income inequality in virtually all OECD countries (Atkinson *et al.*, 1995).

Marketization expands inequality since markets ensure differential rewards. If unrestrained, such inequality can become counter-productive in a whole series of ways. Just as too little inequality removes one crucial incentive for innovation, too much inequality can exclude the talents of much of the population. Equally, because marketization means that everything has its price, it is a powerful force for cultural homogenisation: deregulation of the media industries has reduced cultural diversity even though it has increased formal choice (“five hundred channels and nothing to watch”). And finally, just as the market is a powerful force for liberating individuals from the constraints of group conformity, so unrestrained marketization corrodes any social communitarian social bonds, right into the family itself — and that applies whatever form the family takes. In such a global information society, individuals buy and sell across the world, but are unable to sustain relationships of mutual trust with their neighbours.

Potentially there is an alternative European vision. The key here is that the state is seen as a necessary complement to the market, and not as an unwelcome intruder. State institutions serve the common good, they define a common interest, they ensure that the marketplace is also — as in the Greek *polis* — a meeting place. The European conception of the state creates social inclusion through social rights of its citizens rather than through the arbitrary charity of individual millionaires; it creates a public space where social interests can be articulated beyond the market. In other words, non-market spaces are related to the state and not only, as in both American and East Asian versions, to the family and the ethnic group. Because the market

is not the only legitimate form of interaction, diversity can be welcomed and protected, rather than ridiculed.

Yet such a vision can only be articulated if the future is clearly understood to be open. In other words, if technology is seen as all determining, if “the information society” is inevitable, then the most that public policy can do is ensure that we are prepared for it. At a European level this was in fact the position taken by the *Bangemann Report* (High Level Group of Experts, 1994); this is also largely the stance of *Information Society Ireland*. And such a perspective must mean accepting what are in fact American visions, even though they come under the label “global”. Once however technological determinism is intellectually rejected, once “the information society” describes a range of new possibilities, then there is space for alternative visions and alternative policies. Thus Commissioner Flynn’s “High Level Expert Group on the Information Society” (European Commission, 1996a), and to a lesser extent the Commission’s own Green Paper *Living and Working in the Information Society* (European Commission, 1996b), both suggest how ICT can be utilised in a very different way.

At the level of economic organisations it is argued that full use of ICT requires trust and high commitment. In the US human resource management (HRM) theorists have been preaching “empowerment” for over a decade with precisely this in mind and, it would seem, with some success. Americans — at least those with good professional jobs — do seem to find work and the workplace more rewarding (if also more demanding) than in the past (most recently, Hochschild, 1997). However, while soft HRM theorists preach the importance of motivation and training, their harder colleagues who watch the figures preach the importance of out-sourcing, downsizing and generally making employment more insecure. Reconciling these two imperatives is rather difficult! Equally, talk of trust and empowerment is always rather double edged, for American unitary versions of management do not accept the legitimacy of any other interests than those of management itself. By contrast a European perspective tends to protect existing employment and therefore *potentially* the benefits of retraining; it accepts the legitimacy of diverse interests within the greater community of the enterprise and therefore accepts collective representation as rights rather than favours (trade unions, employee participation, etc.).

American management is infatuated with human resource management and cultural change within the organisation. One of the reasons for this is the condition of American society, increasingly a society of anomic, isolated individuals. In such a situation it becomes both necessary and possible to turn the enterprise into an island of social cohesion in a sea of social anomie. Enterprises have to socialise people because society decreasingly does. By

contrast, Europe's traditions of social welfare as social citizenship makes this less necessary. This is not an argument for the status quo. It is quite clear that the European model of social welfare can contribute to labour market inflexibility, just as the European model of secure employment can stultify innovation. Hence the European Commission argues that making the welfare system more flexible and expanding the training system must go hand in hand. As Commission Flynn argued when launching the Green Paper:

Two of the important messages that I have been trying to put across to you today are the combining of flexibility and security and the renewal of Europe's training and education systems. (Department of Enterprise and Employment, 1996)

Finally, a European perspective can take cultural diversity seriously. The European Union is not developing into a federalist superstate enforcing uniformity on its members. Instead the developing European constitution is haltingly institutionalising diversity (Gillespie, 1996). From an information society perspective this means that diversity can realistically become a resource and not a problem. Conventionally the issue is posed as simply cultural protectionism. How do we preserve our culture, our heritage, our languages, our diversity? The information age is seen as creating one homogenous (and largely American) society.

Yet in the emerging information economy, so it can be argued, our cultural heritage is itself a source of competitive advantage. If Europe is simply created as one large market, then we hand it on a plate to large US and Japanese firms that have specialised in mass production for such markets. The picture looks different if Europeans are seen not just as consumers but as producers. As particularly Sir David Puttnam has argued, European cultural diversity is a potential resource for the educational and artistic products that the information society requires (European Commission, 1997).

As an English speaking European country, linked by language and emigration primarily to the Anglophone world, Ireland occupies a peculiar position in this emerging debate. Up until now, there has been no contradiction between the Irish movement towards Europe and Irish openness to US influence. Now the two are moving into tension. More so than the *Bangemann Report*, the *Information Society Ireland* report does acknowledge the importance of cultural production and indeed claims a particular advantage for Ireland in this area. And equally, the latter report makes some proposals to make training and education a life-long project. At the same time, its fetishisation of market solutions and its fundamental technological determinism means that it accepts a framework that makes

such objectives implausible. Such contradictions suggest that sooner or later, Ireland may have to choose between Europe and the USA.

V CONCLUSION

If technology is seen as all determining, then the future must be closed; what will happen in the future is already fixed here in the present. Much discussion of the "information society" assumes that a motley collection of information society prophets, seers and gurus have been to the future, checked it out and have now come scurrying back to tell the rest of us about it. And often they fail to understand why so many new denizens of this new society remain unimpressed.

Alternatively, once technological determinism is rejected choice is back on the agenda. In education choices will involve above all the extent to which Ireland is to have a real innovation strategy to utilise and develop information technology or remain simply opportunistically taking advantage of EU and multi-national funding. At a more general level, there is a choice emerging between the USA and Europe as forms of social and labour market policy, and consequently of the role of ICT within this. Such choices are necessarily political. Sociology cannot advocate one position or the other, but as a critical discipline it must point out where choices are being made, even if in the name of the great unstoppable, all-embracing and utterly pre-determined global information society.

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