

## **Cultivating Knowledge For Knowledge Societies at the Intersections of Economic and Cultural Analysis**

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### **Introduction**

Perhaps the most distinguishing feature about the voluminous and growing literature associated with new "knowledge societies" is the insufficiency of knowledge about knowledge societies. At least at this stage of development, "information societies" is a more appropriate term, reflecting the mass of facts, description, analysis and opinion that hopefully is preparing the ground for the application of creative insight to develop improved theory, understanding and decision-making. Roger Silverstone didn't use the term "knowledge societies" as he found it vague and uninformative. I use it here as a descriptor of the general goal of the common ICT research agenda, which is to move beyond the generation and distribution of information to cultivate new theory, understanding and knowledge.

The "creative destruction" associated with the ICT revolution has introduced obsolescence not only for many older technologies, business models, industry structures, government policies and regulations, but also for a significant portion of the conventional wisdom and mainstream thinking across all the social sciences. Thus the knowledge pool about new knowledge societies suffers both from a failure to grasp the significance of the new, and a declining capability and relevance of the old knowledge developed primarily from the study of industrial societies. We are overwhelmed with information, but we have very weak knowledge foundations for understanding either the transformation processes now underway or the characteristics of anticipated new societies.

To be sure, this process of fundamental change involves much more than new ICT. The dynamics of the transformation process now underway were initiated, and have been continuously supported, by changes in government policies and regulations. They have been shaped by market forces, the priorities of financial capital, the results of court decisions, and a variety of old and new social, cultural and political institutions. And all these developments have been informed, for good or ill, by the scholarly and other knowledge of the day.

The scholarly knowledge of the day for the most part has been partitioned into finely grained professional specializations carved out during the 20<sup>th</sup> century industrial era. The ICT transformation is disrupting the premises and assumptions of much of this industrial society knowledge requiring scholars to reassess their "business models," that is, the realistic bounds of the particular body of knowledge they seek, the priority issues, the appropriate research methods and dissemination strategies. This requires either a redefinition of the bounds of traditional disciplines or the formulation of new disciplines. The field of media and communication is one, currently being molded primarily by interlopers (and their theories and methods) from the more established disciplines.

In this dynamic and highly uncertain environment, how can one set a framework for examining the implications of ICT for the future economy and society without either disappearing into the irrelevance of traditional far-too-narrow professional specializations, or drowning in the superficial generalities of undefined and unbounded multi-disciplinarity? This was the dilemma I confronted in 1985 when I was asked by the UK Economic and Social Research Council (ESRC) to direct an initiative that would establish a network of ICT research and training centres at six UK universities – the PICT network. The challenge was twofold: first, the knowledge- building challenge - defining a relevant and appropriate research agenda; and second the institution building challenge - finding university-based research teams with innovative proposals that individually and collectively would contribute relevant and useful knowledge about the implications of ICT for the economy and society. The task was made more interesting by the fact that those who ultimately would judge what was relevant and useful knowledge would be appointees of the Thatcher government.

It was within this context that I first met Roger Silverstone and his idea, which seemed a bit strange to me at the time, that cultural theory should be a centerpiece of the PICT network. This brought issues of culture and economics head-to-head as we discussed and debated the respective roles of culture in economics, economics in culture, and how both related to technological change and ICT in particular. The centre Roger established at Brunel University, the Centre for Research into Innovation, Culture and Technology (CRICT), became a PICT centre, contributed to the network in a major way over its decade of formal existence, and prepared a foundation for a continuation and expansion of this work on the significance of culture for understanding the implications of ICT for future societies.

Over the years, we continued our discussions about the interfaces between culture and economics in ICT and knowledge society development, and about the importance of building new institutions that are specifically designed to examine important aspects of evolving knowledge societies. This article reviews some of the key conceptual and application issues at the interface between cultural studies and economics that are central to an understanding of the implications of ICT for future societies, with acknowledgement to the inspiration of Roger Silverstone.

### **Design and Establishment of the PICT Network**

As an economist by profession, I came to my PICT assignment expecting that the new research network would be dominated by economics with a sprinkling of participation from other disciplines to cover the gaps that economics could not fill. At the macroeconomic level, the economics of technological change and the role of innovation, with particular reference to ICT, was an obvious priority area that was filled by Science and Technology Policy Research (SPRU) at the University of Sussex, which already had an established reputation in the field. But as the selection team looked further, we found that the many good proposals from economic groups were overwhelmingly constrained by the conditions and assumptions of mainstream economic theory. They were set in static analytical frameworks assuming known conditions of production, supply, demand and the diffusion path of new technologies, as well as complete information and costless perfect communication among the actors. Dramatic improvements in ICT and fundamental changes in the information and communication foundations of markets and societies did not really affect

mainstream economic analysis at all. ICT was just another sector of the economy like any other (Melody 1985).

This required us to look more broadly at the niche areas of economics examining institutional change and economic dynamics, and select work in other social sciences that was building bridges to the dynamic aspects of economic and social development. We found this at the Centre for Regional and Development Studies (CURDS) at the University of Newcastle which was doing interesting work on new technologies, including ICT, and how they were influencing the changing geographical and employment structure of economic activity.

The search for a centre to focus specifically on key ICT sector industry developments led not to classical industrial structure analysis from mainstream economics, but rather to Communication Studies at the Polytechnic of Central London (now University of Westminster) with a broader expertise in media, telecommunication and libraries. They would examine these distinctive knowledge sectors with respect to not only their distinctive economic characteristics, but also their influence on the communication networks that underpin economic and social change.

The search for changing approaches to corporate decision making (now called new business models) led not to business school proposals, but rather to a multidisciplinary team at the University of Manchester Institute of Science and Technology (UMIST – now part of the University of Manchester). They examined the social and cultural aspects of management decision-making structures associated with ICT-induced organizational and market changes.

If the pattern of ICT developments was a continuing series of interacting radical and incremental technological changes leading to a new economic paradigm for future economies, as Christopher Freeman had argued (Freeman 1982; Freeman and Louça 2001), it behooved us to look deeper into the process of technological development and design. On the technology supply side of the issues, we were led to a group at the University of Edinburgh studying the social shaping of technologies and the dynamics of innovation processes.

Viewing this issue from the demand side, we were aware that the services enabled by most new ICT technologies historically have had to go through a sometimes extended period of experimentation, failure, recalibration, delay and redesign before finding their markets. We looked for research that could look more deeply into the processes of demand for, and applications of, new ICT products and services. Roger Silverstone and his Brunel University team convinced us that a cultural studies approach focusing on the uses of new ICT products and services in everyday life was the best way to understand how and why they were being used to meet the specific needs and interests of particular users. It seemed somewhat ironic at the time that my desire to stimulate research on the deep structure of the development of economic demand for ICT products and services led us to a cultural studies approach as framed by Silverstone and his team.

To my surprise, although a major purpose of the PICT was to research and understand the future information economy, economics was to play no greater role in the programme than several other social

sciences and areas of multidisciplinary study. My economics colleagues were not impressed. But our search had demonstrated that during periods of significant change, the conventional wisdom from the established disciplines has less relevance, and can often be a major barrier to an independent exploration of the dynamic issues that must be addressed (Melody 1985a).

It is noteworthy that each of the PICT centres was multidisciplinary (or as Silverstone would prefer, interdisciplinary) in a very specific way and anchored in a different academic discipline. At each center, the multi-disciplinarity included only a small number of traditional disciplines, but the researchers took a broad view of their disciplines and the research directions of many of them were interdisciplinary or multidisciplinary. We learned that multi-disciplinarity without clear and bounded specification is meaningless. It is very specific synergies in defined areas of knowledge that are needed, not amorphous multidisciplinary groups. As the number of traditional disciplines that one attempts to integrate into a research team increases beyond a small number, the incompatibilities and communication difficulties will rapidly overwhelm the potential synergy benefits. In the early years of the PICT network, one of my major tasks was trying to ensure the research of the different centres was communicated effectively and understood by the others. The most effective technique was asking one centre to explain the research of another, which invariably provoked major corrections and lively debate.

The research output from the PICT was voluminous, diverse and significant, thanks particularly to the PICT Director in its latter years, William Dutton, who gave top priority to publication and dissemination, and edited several books bringing together selected PICT research around important themes. Several members of PICT centres have moved on to establish new centres and programmes building on the foundations they established in their PICT research. Roger Silverstone built further on his cultural foundations of ICT research work at the University of Sussex and then founded the interdisciplinary Media@lse programme, and later the Media and Communications Department, at the London School of Economics.

### **Cultural Issues in Economics**

Individual economists have dealt with cultural issues bearing on economic questions in a variety of ways over the years, but these have been considered to be well outside the mainstream of theoretical and applied analysis, especially during most of the 20<sup>th</sup> century when the field was deliberately narrowed in a pursuit of greater rigor, precision and certainty. In fact, most of the key elements of dynamic analysis were pushed to the margins of the profession, including technological change on the supply side, the formation of tastes and preferences on the demand side, and market imperfections due to ignorance, information deficiencies and communication barriers and failures. These issues were, and are, examined by institutional and evolutionary economists who have departed from the mainstream thinking and work at the fringes of the profession (Melody 1985b).

Scholars, such as Thorstein Veblen in the early 20<sup>th</sup> century, saw cultural differences and changing social formations in society as key factors affecting economic development (Reisman 1953). More recently, scholars such as J.K. Galbraith, for example, in his book *The Culture of Contentment* (1992) saw the culture of the privileged classes as a barrier to economic structural reforms; and Kenneth

Boulding (1969) attempted to extend economic analysis beyond markets to the “grants” economy and other non-traditional areas in the context of recognizing cultural and moral issues. Books like the *Seven Cultures of Capitalism* identified that different cultures produce very different forms of capitalistic development with different economic consequences, such as the US with a high propensity to consume and Asian countries with a high propensity to save (Hampton-Turner and Trompenaars 1993). My book, *Children's Television, the Economics of Exploitation*, was directed to identifying market failure in responding to the documented needs of child culture, and public policies that could correct that failure (Melody 1973).

Economic analysis of this genre - examining institutional issues where cultural differences were important part of economic analysis - was, and is considered unduly normative and beyond the bounds of “sound economics” by mainstream economists. But from a broader social science perspective, the treatment of cultural issues by institutional economists has been very limited, and seldom strays beyond the identification of cultural characteristics and differences in society that have significant economic consequences and may justify policy intervention.

In the institutional economics literature that focuses on the implications of technological change, where broader conceptions of culture are brought into the analysis it is most often seen as part of the established institutional forces of resistance to change, that is, the established patterns of behaviour, beliefs and vested interests that slow technology implementation and economic development, perhaps best illustrated in the classic work of Clarence Ayres (1965). This is highly informative research, but there is little offered in terms of in-depth analysis of the cultures, dynamic analysis of cultural change, or the development of new cultures associated with the application of new technologies.

From the perspective of mainstream economic analysis, the “virtual birth” of cultural economics came with the publication of Baumol and Bowen, *Performing Arts: The Economic Dilemma*, in 1966, which showed that, as the performing arts were labour intensive but not subject to significant productivity increases from technological improvements, they were condemned either to continuously increasing costs per unit of performance or declining real incomes for the performers, as the economy grew (Blaug 2001). With this foundation, cultural economics within the mainstream paradigm focuses almost exclusively on the economics of cultural goods and services as special cases for the application of traditional market analysis. There is an association, a journal and a handbook which describes the field as follows,

Cultural economics, therefore, is the application of economics to the production, distribution and consumption of all cultural goods and services.....What all cultural goods and services have in common is that they contain a creative or artistic element. Cultural goods are tangible objects, such as an artwork or a book; others are intangible services, like a musical performance or a visit to a museum. (Towse 2003, 1-2)

This field of study has been stimulated by the recognition that industries producing and marketing cultural goods and services have grown to be significant elements of the economy and are therefore worthy of study in traditional economic terms (Hesmondhalgh 2002). But the study of cultural

goods and services as just another rapidly growing industry sector does not attempt to explain the role of culture and its relation to changing technologies and their related products and services.

Thus, if one is looking to explain the forces behind the basic economic theory of demand, one immediately gets stuck on the classic assumption that consumer tastes and preferences are assumed to be given. Consumer selection of goods and services based on price and quality in competitive markets will identify what the tastes and preferences are. But, identifying what lies behind those tastes and preferences, and how they are changing in an environment of rapidly changing ICT products and services requires that one look beyond economics. In building the PICT network we were forced to investigate other disciplines for help.

### **Economic Issues in Cultural Analysis**

Traditional cultural analysis - with its preoccupation with elite culture removed from the market economy - seemed to offer even less than mainstream economic analysis with respect to an understanding of the relations between culture and technological change. But cultural analysis itself was in the process of fairly fundamental change as the growth in cultural industries had demonstrated that there was far more cultural activity in the market economy than in non-market, primarily elite cultural activity.

Nicholas Garnham brought the point home clearly in his timely mid-1980s paper, 'Concepts of Culture: Public Policy and the Cultural Industries':

while this [elite culture] tradition has been rejecting the market, most people's needs and cultural aspirations are being, for better or worse, supplied by the market as goods and services. If one turns one's back on an analysis of that dominant cultural process, one cannot understand either the culture of our time or the challenges and opportunities which that dominant culture offers to public policy makers.

... An analysis of culture structured around the concept of the cultural industries, on the other hand, directs our attention precisely at the dominant private market sector. It sees culture, defined as the production and circulation of symbolic meaning, as a material process of production and exchange, part of, and in significant ways determined by, the wider economic processes of society with which it shares many common features. (Garnham 1987: 25)

Cultural analysis from this perspective might be capable of contributing to the problem of unpacking the economic conception of demand in a dynamic environment associated with new ICT products and services as simply predetermined tastes and preferences. Thus, when Roger Silverstone presented his proposal for research that would take our understanding of demand behind "the consumer sphinx", as he called it, it was becoming apparent that a unique opportunity was at hand. As he later described it, "we can begin to enquire into the wider cultural spaces in which technologies operate, and which give them both their meaning and their power" (Silverstone 1999: 22).

Silverstone emphasized that ICT, much more than other technologies and services, are fundamentally integrated into the social fabric of the user's everyday life:

Once one focuses, then on the everyday lives of actual and potential users of such technologies and recognizes that their use does not just involve the object (the machine, the handset, the terminal), but is implicated from the very beginning in networks of connections, both in the real and in the mediated world, then it is hardly surprising that the social and cultural dimensions of usage emerge as crucial components of the innovation process. (Silverstone 2005: 102)

In an interesting juxtaposition to the technological determinism that still characterizes much of the ICT literature, Silverstone argued we must study more seriously how individuals, groups and whole societies mold these new technologies to the values and habits of their everyday lives. The distinction between producers and users - a clear demarcation in economic analysis - is being shown to be far less differentiated with respect to ICT products and services. Blogs are just one example. Indeed, one need only observe recent developments like prepaid mobile and SMS services to see how their applications and growth have been shaped more by users unveiling unrecognized social and cultural priorities than the service providers, who prepared for something very different. Also, the slower than expected take-up of broadband can be at least partially attributed to incomplete information about how users will be shaping its applications to meet their as yet unclear social and cultural, as well as economic priorities.

Silverstone suggested this research agenda would be much more than an academic knowledge building exercise. Its research insights could be taken to the policy arena to broaden the horizons of policy considerations, particularly with respect to such issues as new media literacy and economic development. These insights would show, and by now have shown, that access to new media technologies and services - the mantra of digital divide initiatives - is not enough. Media literacy to enable proactive engagement and participation must be a major goal of public policy preparing the ground for knowledge societies. The theme of capabilities was central to his work with Robin Mansell (Mansell and Silverstone 1996) and more recently they opened a discussion around the policies and regulations necessary to participate in Internet connected societies (Mansell et al. 2002).

As a goal for future policy research and policy development, Silverstone had begun to push the envelope even further. In mediated knowledge societies, he argued,

Regulation should address the wider and, I have suggested, much deeper issue of our relationships to others, to those for whom we have no formal responsibility, to those who are distant in space and culture, the strangers amongst us, our neighbours abroad; but for whom our basic humanity requires that we should care. This is, of course a tall order. However, it suggests a shift, and one that it might be argued is long overdue. It involves a shift away from regulation as narrowly conceived in the minds and practices of parliaments and councils, towards a more ethically oriented education, and towards a critical social cultural practice which recognizes the particular characteristics of our mediated world. We once upon a time taught something called civics. It is perhaps time

to think through what civics might be in our present intensely mediated century.  
(Silverstone 2002: 285)

Silverstone was now moving beyond the matter of learning how social and cultural relations are influencing ICT and service developments in the evolution toward knowledge societies. The new challenge he poses is how social and cultural practices in the new societies can be cultivated that will reflect our common humanity. How can our policies and practices shape social and cultural - and I will add, economic and political - structures and characteristics to reflect the knowledge societies we desire rather than those we might happen to get?

Preliminary research on the implications of new ICT applications for privacy, security and other issues suggests that a random walk to knowledge societies may not produce societies that most people would consider better than current ones. Research also demonstrates that information-cum-knowledge economies are likely to be characterized by major market imperfections requiring policy intervention (Melody 2006). Silverstone has directed our attention to the fact that knowledge societies are being shaped heavily by widespread policy intervention in markets, and left us with a very large agenda to consider about policy objectives and options, and the cultural characteristics those policies are likely to cultivate.

Roger Silverstone played a major role in helping to bring cultural studies into the forefront of research on information/knowledge societies, to help develop it in imaginative ways that inform media, technology, economic and policy studies, and to set participatory challenges for the growing community of scholars that is continuing this work. Engaging with him at the interfaces between economics and cultural studies relating to ICT and evolving knowledge societies has been a learning experience to cherish.

### **Biography**

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