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INTANGIBLES' VALUE – A CHALLENGE TO POLITICAL ECONOMY OF INFORMATION

INTRODUCTORY REMARKS

How should we conceive the new role of universities in the knowledge-based economy? Or what are the new types of technological transfer from the university to the economy? – these are relevant questions, there is no doubt! But, has it ever been possible to speak of such a straight exchange – between university and economy? And what was exchanged – money for knowledge?

I am aware that the intentions of the Conference organisers are contrary to any such kind of simplification, but a blunt simplification is already being imposed by this notorious appellation of a supposedly new society and its economy that would be based on certain knowledge. Freeman and Louçã (2001) remind us of the fact that every human economy has been a “knowledge economy” and not only the contemporary one. What have been changing are the ways of learning and accumulating knowledge and passing it on, interacting with changing ways of organising production, and of regulating economic activities and social behaviour.

Still more profound is a warning that comes from Jacques Derrida (2001): “Something serious is happening or is about to happen to what we call ‘work’, ‘tele-work’, virtual work and to what we call ‘world’ – and therefore to the being-in-the-world of what is still called man”. And more precisely: “... this capitalistic situation (there where capital plays an essential role between the actual and virtual) is more tragic in absolute figures that it has ever been in the history of humanity”.

THE UNDERSTANDING OF HISTORICAL DYNAMICS

The link between the facts and the induced theory has never been established in a systematic and rigorous way for a time span from the first industrial revolution to the so-called “new economy”. It seems that Freeman and Louçã’s book *As Time Goes By: From the Industrial Revolu-*

tion to the Information Revolution fills that gap. There is an evident ambition of the authors to discuss the nature of the dynamics of the economic system, the different modes of capital accumulation and technology, culture, and the modes of social control prevailing in each epoch. Following Richard Nelson's insight that the theoretical quest is for an understanding of the dynamic process behind the observed change, and that evolutionary theory is based on the concepts of selection and creation of variety, they believe that evolutionary economics is consequently about choice and social responsibility.

The concept of time as an arrow is a recent one in the history of civilisations, associated with the idea of destiny. Contrary to that, evolution is understood as an open process, evolution evolves but accepts no destiny. Nevertheless, the authors argue that the evolution of societies and economics has recognisable patterns. These patterns are discernible as the relation between technological innovation, social structure, economic development, institutional framework, and cultural standards. Economics was originally, and must continue to be, an historical science. A inquiry into economic fluctuations and structural change must be immersed in time.

The social subsystems (science, technology, economy, politics, culture) generate a large number of irregular fluctuations, caused either by specific subsystem cycles (political and business cycles, technological trajectories, cultural movements, etc) or by lags and feedback in the inter-system connections. Given that each subsystem is defined as the heuristics for some social relation, their interrelations cannot be deterministically discriminated by an exhaustive account of a simple model. The variable most relevant to the understanding of historical dynamics is the co-ordination process itself, articulated by its power under all its forms, from the production of legitimacy to strict coercion.

INFORMAL CONSTRAINTS

Insights from technology studies and studies of history of technology highlights the contingent nature of many technological innovations, and the important role played by the "social" and institutions (Soete and Dolfsma, 2003). Integrating institutions into economic theory and economic history is an essential step in improving that theory and history. But there as yet has been no analytical framework to integrate institutional analysis into economics and economic history (North, 1990:3). Together with the

technology employed, institutions determine the transaction and transformation, but technology, at least in the neo-classical framework, was always an exogenous factor and thus never really fit into the theory. The problem of human co-operation, North considers, is the theoretical foundation of the underlying role of institutions.

Institutions exist to reduce uncertainties that arise from incomplete information with respect to the behaviour of other individuals in the process of human interaction. The consequent institutional framework, by structuring human interaction, limits the choice set of the actors. We should take explicit account also of the way institutions alter the price paid for one's convictions and hence play a critical role in the extent to which non-wealth-maximising motivations influence choices, North suggests.

Without institutional constraints, self-interested behaviour will foreclose complex exchange, because of the uncertainty that the other party will find it in his or her interest to live up to the agreement. The third-party enforcement has been the critical underpinning of successful modern economies involved in the complex contracting. A coercive third party is essential. One cannot have the productivity of a modern high income society with political anarchy.

The formal rules, in even the most developed economy, make up a small part of the sum of constraints that shape choices. In our daily interaction with others, the governing structure is overwhelmingly defined by informal constraints: by codes of conduct, norms of behaviour, and conventions. They come from socially transmitted information and are part of the heritage that we call culture. The informal constraints that are culturally derived will not change immediately in reaction to changes in formal rules.

Neo-classical theory is concerned with the allocation of resources at a moment of time, a devastatingly limiting feature to historians whose central question is to account for change over time, North underlines.

COMMODIFICATION

Informational capitalism (Castells, 1996) had very different manifestations in areas and different societies around the world. It proceeded on the basis of the political defeat of organised labour and the acceptance of a common economic discipline inscribed in the integration of global financial market, equalising basic economic parameters. The new information technology is being used to homogenise

conditions of global capital accumulation around the world. A theory of the informational society, as distinct from a global/informational economy, will always have to be attentive to historical/cultural specificity as much as to structural similarities related to a shared techno-economic paradigm, Castells warns.

As against the postindustrialists' assertion that the value of information derives from its inherent attributes as a resource, Dan Schiller (1988) counters that its value stems uniquely from its transformation into a commodity. As a resource information has been socially re-valued and redefined through progressive historical application of wage labour and the market to its production and exchange.

Coming to a deeper understanding of that perspective requires that one approach the political economy of communication with the self-consciousness and self-reflexiveness necessary to take stock of its fundamental epistemological and conceptual foundations, as Vincent Mosco (1996) has done. His reading of epistemology broadens the knowledge process from simple determination to multiple, dynamic interactions among elements that are themselves in the process of formation and definition. Guided by the insight that structures and institutions are in the process of constant change, Mosco developed a substantive map of political economy with three entry processes: from the process of transforming use to exchange value (*commodification*), to the process of transformation of space with time, or the process of institutional extension (*spatialization*), and finally to the process of constituting structures with social agency (*structuration*).

As a term, commodification is implicit in discussions of the process of capitalist expansion, ranging widely to include the global extension of the market, privatisation of public space, and the growth of exchange value in interpersonal life.

The expansion of capitalist power over the last five hundred years has been associated not just with inter-state competition for mobile capital but also with the formation of political structures endowed with ever more extensive and complex organisational capabilities to control the social and political environment of capital accumulation on a world scale (Arrighi, 1994:14).

A COLLECTIVE INTELLECT

The Internet was too daring a project, too expensive and risky to be assumed by profit-oriented organisations. The Internet developed in a secure environment, provided by public resources and mission oriented research. The meritocratic gentry met the utopian counterculture in this invention. Only a network of thousands of brains working co-operatively, with a spontaneous division of labour, and loose, but effective co-ordination, could accomplish the extraordinary task of creating an operating system able to handle the complexity of increasingly powerful computers interacting via the Internet.

The Internet transformed business as much as business transformed the Internet.

The realisation of the potential of transforming mind power into money-making became the cornerstone of the entrepreneurial culture. Ideas were sold to venture capitalists, and these ideas embodied as companies were sold to investors via public offerings on the stock market. The only way for entrepreneurs to be freed from capital is to be able to attract capital by themselves and to control a large enough share of the future wealth that would come from investors. This is why stock options are the fundamental mechanism connecting individual freedom to entrepreneurship.

The fate of the company is dependent on its ability to attract investors in the financial market. Their valuation is a function of technological innovation, business innovation, and image-making in the financial world. The ability of capital to flow in and out of securities and currencies across markets is technologically powered by a network of computer networks that ensures the capacity to trade and decide globally in real time.

The electronic trading reduces transaction costs at least by 50 percent, thus attracting more investors, and generating more transactions. The investment is led by the growth of stocks values, not by earnings and profits. Empirical evidence shows that the stock market valuation of firms has increasingly diverged from their measured book value. Intangibles count: once the market decided that the Internet was the technology of the future, any stock related to the Internet had an instant premium. Financial markets have become a sort of automaton, with sudden movements that do not follow a strict economic logic, but a logic of chaotic complexity: the interaction of millions of decisions reacting in real time, in a global span, to information turbulences from various origins.

If labour is the source of productivity, the creative power of labour and the efficiency of business organisa-

tion ultimately depend on innovation. Innovation is a function of highly skilled labour, and of the existence of knowledge-creation organisations. Castells emphasises the essential role of co-operation and open access to information in the process of innovation, facilitated by on-line interaction.

A product of superior quality is generated by the collective effort of a network, an effort in which each participant finds a reward from the freely contributed efforts of others. So, innovation is still the product of intelligent labour, but of a collective intellect. Co-operation in innovation, and competition in applications and services, seem to be the division of labour in the new economy.

CORPORATE POWER

The dramatic rise in the banking business around the world was an essential economic foundation of the cyber-financial order (McMahon, 2002). At its centre was the transformation of money into electronic signals. Not only did the new technology enable the big financial institutions to operate more flexibly, it changed the very character of money. "Telematic reorganisation" of business corporations revolved around the restructuring of the corporation as a cyber-financial control structure which increasingly processed information instead of materials. The technological development which enabled efficient electronic data communication within and between corporations – electronic data interchange (EDI) – acted to remove human elements and to integrate outside entities into the internal hierarchical structure of the dominant partner.

The rise of the cyber-financial order had basic implications not only for the development of the world economy, but also in relation to the fundamental issues of systemic governance of a global society. One could see, McMahon suggests, the clear structural tensions between the tendentially globally systematised finance markets and the state-managed productivist policies of developed states, and the overall growth of deflationary monetary policies. Finance markets were so much greater than national financial resources, traditional national economic policy options were being closed down by finance market power, and nation states were increasingly dependent on financial markets for their own funding needs.

The free and open Internet is running out of time. We are reaping the worst of both worlds, networked chaos and monopolistic consolidation. In other words, we are

screwed. To Rosenberg's pessimistic conclusion, Lovink (2002) responds: The presumption of the "we" as consumers is itself a setback and points at the fading awareness that only user empowerment, not consumer behaviour, can make a difference. Internet advocacy groups are still mainly focused on issues related to government regulation, with the blind spot for corporate power.

A polarisation is becoming visible between those sticking to the outworn New Economy tales of "good capitalism" and others, questioning the free market a priori. The critique of globalisation is not a backlash movement, as conservatives suggest. The movements active under the "Seattle" umbrella all offer a clear blueprint for global justice and economic democracy. Opposite to the branch model there are active translocal exchanges between a "multitude" of nodes.

The new economy is a mix of neo-liberal state policies and entrepreneurial myths. Its rhetoric of how to achieve a high-productivity and low-inflation economy never mentioned the notion of "the public". At the end of the story, the new economy can be characterised as a process of transforming and adapting the old economy to information technology in all layers of capitalist production, distribution and services, including the communication patterns on the user-turned-consumer. Fights over patents and intellectual property have destroyed the innovative culture of the early 1990s. But the conflict between utopia and negativism cannot and should not be solved, Lovink suggests invoking Hannah Arendt's reading of Plato's *Republic*. The (self) containment of cyberspace should be rooted as a call for responsibility, not in a passive delegation of power to the state or the market.

We are challenging the internationalisation of a single economic model: neo-liberalism, Naomi Klein (2002) declares. What we are calling "globalisation" must be recast not just as an inevitable stage in human evolution but as a profoundly political process: a set of deliberate, debatable and reversible choices about how to globalise.

It is time to stop conflating the basic principles of internationalisation and interconnectedness with this particular economic model that has a tendency to treat trade not as one part of internationalism but the overarching infrastructure of it. It gradually swallows everything else – culture, human rights, the environment, democracy itself – inside the perimeters of trade. We are discussing the effects of this profound corporatization around the world; the ways in which "the commons" is being transformed and rearranged – cut back, privatised, deregulated – all in

the name of participating and competing in the global trading system.

CHANGING EPISTEMOLOGY

The realm of the postmodern denotes rampant commodification, unchecked by oppositional forces that find themselves subverted or even co-opted by the very power and allure of the market (Cullenberg et al., 2001). And this world structured according to the object-life of the commodity has been thought to have received an enormous recent boost by the emergence of new information technologies.

According to this view, computers have made commodity time and space ultimately traversable in ways unthinkable for the past generations of producers and consumers. This obliteration of previous constraints of time and geographical location in buying and selling reconstruct all notions and experiences pertaining to community and nation.

If the postmodern age is one in which culture is merely an accompaniment to capitalist economic expansion, then it is a legitimate question whether it is at all possible under the circumstances to think about such issues as value and exchange in any register “outside” the regime of the commodity as “the general equivalent” Cullenberg and co-authors point out.

Self-reflexivity, they argue may be something other than subjective self-awareness; it is more concerned with the argument that all things, from politics to philosophy, are intimately bound up with the situatedness of those engaged in these activities. Identifying the locations from which people speak, write, and act matters for the kinds of meanings and values that can be produced. “All knowledge, a fortiori economic knowledge, is local and contingent and connected to a community in which that knowledge was produced or interpreted or otherwise made significant”, E. Roy Weintraub (1992) is quoted. Postmodernists often claim that knowledge in classical epistemology is built upon a misspecification of the nature of the subject and ignores the impossibility of ever pulling apart the knower from the known. Subjects are active in the construction of truth, and their very observations and perceptions structure those truths irresistibly.

The imbrication of power and knowledge was the focus of much of Foucault’s work, Cullenberg and colleagues remark. Postmodern critics have taken from him the view that there is nothing much to be ashamed of in

the recognition that there are “wills” and “desires” to knowledge that have as much to do with power as they do with anything else. The power can be contended over; it can be an object of struggle over who gets to speak and produce authoritative knowledge and who does not.

Scientific knowledge, as Wade Hands (2002) clarifies, is not one thing, and human interests something else. Knowledge and interests are deeply intertwined; “interests” are not separated from “knowledge-producing interests”. The relationship between political economy and epistemology is a much more complex relationship than once thought. Throughout economic activity, John Dunning (2002) observes, *created intangible assets* are replacing natural or created tangible assets as the main source of wealth augmentation in industrial society. The trend towards *the cross-border augmentation of assets* is an important instrument for increasing economic well-being. In evaluating the economic prosperity of societies, scholars need to give more attention to the dynamics of asset-seeking FDI and to the contemporary spatial distribution of economic activity.

“INTELLECTUAL CAPITALISM”?

Tom Karp (2003) uses this strange appellation reminding us that the capitalism of today needs to mature as a system before intellectual capital will be more measurable and more manageable. The most important challenge for intellectual capitalism is to develop the necessary organisational platform of social capital, on which intellectual capital can grow. But, is it just the question of an organisational culture, as Karp seems to believe?

The last decade has seen an explosion of a literature on the nature and significance of knowledge capital and its competitive enhancing qualities for both firms and countries. And also, of the appropriate organisational modalities for its creation, sustenance, exploitation and diffusion. But, as Dunning (2003) remarks, only scant attention has been paid to what he terms relational assets (R-assets) as they affect the success or failure of infra- or extra-firm association. They are different from other assets in a number of ways, but their essential uniqueness lies in the fact they can be productively employed if they are used jointly with the R-assets of another economic actor. They cannot be owned; only accessed and then controlled or influenced in the way in which they are deployed. Therefore, their content and effectiveness is likely to vary according to culture, values and ideologies.

The term “social capital” has a variety of meanings. According to Dunning, a definition more directly related to R-assets is “the accumulated societal fund of economic relationships, which are embodied or repositied in both individuals, organisations, and networks of organisations, engaging in economic activities”. The extent and content of a community’s social relational capital affects the capacity of particular firms to generate and deploy their own R-assets. It can be a major influence on the kind and purpose of relationships, their form and their location – both between and across national borders.

In the context of their exploration of the role of social capital in the creation of intellectual capital Nahapiet and Ghoshal (1998) suggest that it is useful to consider three clusters: the structural, the relational, and the cognitive dimensions of resources rooted in relationships. Unlike other forms of capital, social capital is owned jointly by the parties in a relationship making possible the achievement of ends that would be impossible without it.

The term intellectual capital as Nahapiet and Ghoshal understand it refers to the knowledge and knowing capability of a social collectivity. It comprises both socially explicit knowledge and socially tacit knowledge. They argue that all new resources, including knowledge, are created through two generic processes: combination and exchange. The combination and exchange of knowledge are complex social processes and much valuable knowledge is fundamentally socially embedded – in particular situations, in coactivity, and in relationships. Social capital facilitates the development of intellectual capital by affecting the conditions necessary for exchange and combination to occur. It is the coevolution of social and intellectual capital that underpins organisational advantage.

The concept of embedding fundamentally means the binding of social relations in the context of time and space. Social activities are recursive, and for Giddens, quoted by Nahapiet and Ghoshal, this implies a concept of human knowledge ability that underpins all social practice. The reciprocal quality of the relationship between social and intellectual capital seems to be confirmed in the common social embeddedness of their forms. Institutions facilitate some forms of exchange and combination but limit their scope. The creation and maintenance of social capital, particularly its relational and cognitive dimensions, are costly; like all such investments – conscious or unconscious – they require an understanding of the relative costs and benefits likely to be derived there from.

The uncertainty associated with knowledge-related investment, and the need for effective networks which enable knowledge to flow easily, point to the importance of high levels of trust both at organizational levels and in macro-level systems (Trewin, 2002).

Using the notion of social capital indicates a tendency to focus on the connection between economic performance and invisible social “glue” which facilitates coherence and coordination of economic behaviour. The term *systemic competitiveness* (Nielsen, 2003) is used to describe the broader context and the interaction between various elements influencing competitiveness, including social cohesion. The fact that the vast majority of developing countries have failed to find a path of dynamic economic growth needs specific consideration. The reforms are not translated into beneficial societal effects because of missing links in the overall functioning of the economic and social system. The importance of *participatory forms of governance* and efforts to strengthen social integration is now evident.

The lack of organisational and governance capabilities (*meta-level deficiencies*) is the reason for the failure to develop appropriately *interlinked decision-making* at the meso level, which is of special importance in the contemporary context of new production paradigms and globalisation.

Neo-classical economics assumes autonomous, atomistic agents interacting in anonymous market relations. Contrary to this under-socialized view of the individual, the concept of social capital presupposes a culturally and socially embedded individual.

Along that fundamental insight some essential questions remain to be duly considered and researched.

It is necessary to examine which kinds of value system deficiencies at the meta-level hinder the development of interconnected decision-making at the meso-level and how that corresponds to the socio-cultural values of individuals and their own social networking?

By means of which research methods can we identify the patterns of spatial and virtual linking/networking within and between structures that form different national systems of knowledge/innovation and the levels upon which the system of competitiveness depends?

Not less difficult would be a possible effort to monitor the flows and types of exchange (commodified and non-commodified), their degree of intensity and the

kinds of imperatives (economic, political, technological, ideational/ideological, moral) upon which they are based.

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