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Knowledge, democracy and local development

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Abstract

Building on a critique of current approaches which seek to quantify 'trust', 'social capital', 'collective efficiency' or 'collective intelligence' as resources or 'tools', the emphasis here is on a relational approach. This approach attempts to show and define the connections between knowledge flows and local systems of interaction and innovation as factors of development. The issue of local development will be addressed from a methodological perspective based on on-going research which attempts to understand local knowledge flows in the social articulation of local systems of innovation.

Keywords: knowledge flows, local development, democratization of knowledge, local systems of innovation

Introduction

Development here is the key word – in every sense. Development as seen in a context of extreme complexity and from the point of view of developing countries, "from the South" (as inspired by Judith Sutz and Rodrigo Arocena, and remembering Celso Furtado). Whether we choose to speak of "associated dependent development", "unequal dependent development" or of "the development of underdevelopment", the point is that the best parameter is not that of trying (unsuccessfully, always) to follow the same trails as other societies, but rather to find the most adequate trail for each one.

Accumulated research experience has shown that local development can be an important lever for more wide-spread innovative development when successful experiences are emulated by nearby towns or micro-regions. Equally relevant – or maybe more so – is the consensus on the importance of knowledge for social innovation, social change and, thus, development.

In the midst of all the enthusiasm on the so-called 'globalization of information', we take the opposite route and argue in favour of local circulation of knowledge as a sine qua non condition for development. In other words, the focus here is on the intimate connection between the democratization of knowledge and the possibilities of local development.

After a brief discussion of what we mean by the democratization of knowledge, the second part of this paper will focus on local knowledge flows. The third section will discuss the conditions of local development from the perspective of knowledge circulation, building on a critique of other recent approaches. The last section will attempt to indicate some relevant issues for research design in this line of thought.

Democratization of knowledge

If, as has already been said, development depends (not only) on innovation in the productive system and if innovation, in its turn, is based on the circulation of information and the distribution of knowledge, it follows that innovative socioeconomic development implies the democratization of knowledge. In this sense, we can propose a(nother) definition of innovation, where it consists of the development of new forms of producing, applying and distributing knowledge. Robert Merton, in a classic text written in 1942 showed that knowledge needs democracy. My argument here is that knowledge can also breed democracy. It may be less important to focus on new knowledge than to examine the social relations of production and appropriation of scientific and technological knowledge.

The fallacy of the concept of "knowledge society" lies precisely in that it presupposes, or suggests, the existence of a homogeneous socio-economic distribution of knowledge and thus of the benefits of the new paradigm. But it is quite evident that the differences between countries, regions and classes are more and more due to the unequal access to knowledge and information.

Nico Stehr (2000) has pointed out that as knowledge more and more takes the place of property and work as a mechanism of inequality, the relation of individuals and groups to knowledge becomes of fundamental relevance to patterns of social inequality in contemporary societies. We might add that knowledge property (privatization of knowledge) becomes a relevant issue in this context.

This means that knowledge is now the necessary condition for the construction of wider and more solid bases for action. By this is meant a complex set of social competences and capabilities of more general

access, whose impact on social structures of inequality accelerates the opportunities for social actors to reformulate – or transform? – the social constructions.

Since technological change is based on the production and transmission of knowledge, development depends on the degree and the mode of accumulation/distribution of knowledge. In this sense, socio-economic inequality is an obstacle to development. Therefore, in the context of the new techno-economic paradigm, the production/distribution of knowledge and the reduction of social inequalities become reciprocally indispensable.

The immaterial transformations which occur in the production of “intangibles” as well as in material production holds the potential for bringing about social change – and, consequently, the possibility of development.

Knowledge has thus now become a strategic factor, not only for economic accumulation but also for social development. Our task therefore must now be to try to understand specific social configurations of the mode of articulation of economic and intellectual factors of development.

The capacity for technological and social innovation – which presupposes the production and distribution of knowledge – is configured by the cultural and institutional environment, more than by the availability of material resources.

Based on the principle that the cultural and institutional milieu defines the capacity and the forms of innovation, the utility or the convenience of a “model” (as in “Japanese model” or “Italian model”) is rejected in favour of understanding local cultural and historical identities. This should be the starting point of any diagnosis, policy or strategy.

Examining the circulation of knowledge through interaction implies a need to distinguish between explicit and tacit knowledge.

Explicit knowledge, because of its presumed transferability, is assumed to be globally available. In point of fact, we know it is not. Here it is important to remember the discussion by Nico Stehr on knowledge as a possible mechanism of social inequality, as well as the point argued by Sutz and Arocena on the capacity of absorption of knowledge in developing countries.

Gertler (2003) also questions the assumption that explicit knowledge is easier to transmit. To argue his point, he asks how many business and economic development practitioners find learned academic journals on economic geography accessible enough to actually read. Business magazines and other interpreters/translators are often required to catalyze an effective connection. Of course, Gertler’s argument can also be used in the same sense that Sutz and Arocena speak of absorption capacity in the South.

Tacit knowledge, on the other hand, is presumed to be “sticky,” in that it tends to be localized in some fashion. Therefore, it has become accepted that tacit knowledge is the most important basis for a differentiated level of innovation. (Gertler, *op. cit.*)

In the discussion of whether tacit knowledge is best transmitted in physical proximity or in groups with similarity of interests or professions, what seems to have been shown in research is that the transmission of tacit knowledge is best accomplished through face-to-face interactions among partners who already share basic similarities. Geographic proximity takes center stage.

#### Local development

Proximity – territorial and cultural – becomes a relevant factor when speaking of circulation of knowledge through interaction among a plurality of diverse (heterogeneous) social actors.

Much of the work focusing on regional innovative capacity reveals the impact of geographical concentration upon learning. Learning is understood as the capability of developing new routines, skills and social practices in [not only] economic activity (Lundvall and Johnson, 1994).

It is also important to underline the need to combine knowledge from different sources [institutional and social diversity] so that “knowing how to communicate, to cooperate and to interact becomes much more important than before” (Lundvall and Johnson, 1994:25).

As tacit knowledge is transmitted through socializing and is more common in emerging technologies, geographical proximity and, above all, social interaction plays a key role for its diffusion and, consequently, for innovation.

Local knowledge flows are activated through interaction, in formal and informal contacts, where both explicit and tacit knowledge circulate. We have observed, in several studies on “local systems of innovation”, that an increase in interaction in which knowledge is shared usually stimulates innovation and contributes to local development.

Cassiolato and Lastres (2003) and Maciel (1996, 2002) among others, have shown that “thinking locally” may be a fruitful strategy to understand the possibilities of development in “the South” (which is not necessarily a geographical reference). In fact, the processes of articulation and interaction among the various political forces and diverse social actors involved seem to be more effective and more viable

when they occur from the bottom up – from municipalities to the region, from the region to the country, etc. (“Glocalization”, if you will, as a counterpoint to “globalization”)

In the literature on local development, “social capital” and “trust” (very loosely defined, in general) – which in some cases appear as synonymous – are frequently credited with being the main factor of success, meaning economic growth and “competitiveness” (Putnam, Fukuyama, Locke, etc.). This approach has contaminated the reasoning on “learning by interacting”, which does not necessarily involve “social capital” nor trust. If it were so, we would be at pains to explain counter-examples such as the Cosa Nostra (which functions on the basis of trust) or the industrial districts of Third Italy (which do not – see Maciel, 1996).

Significant “stocks” of social capital and/or trust have also been considered responsible for the formal and informal circulation of knowledge which promotes innovation.

However, these interpretations often pose more problems than they solve. In seeking to quantify ‘trust’ or ‘social capital’ as resources, instruments or ‘tools’ for local development, most of these authors incur in an instrumentalist pragmatism: it would seem that this component of social relations is something that can be translated into quanta, and could thus conceivably be (re)produced. This, in some cases, leads to a perspective that advocates the creation of certain characteristics of social relations as a means to achieve very precise ends: usually associated with economic performance and competitiveness.

On the other hand, when the focus is on the analysis of social processes instead of recipes for success, there is less danger of falling into the trap of trying to define a social relation by its effects. For this reason, Locke and other enthusiasts of social capital do not mention the European perspectives on social capital (e.g. Bourdieu, 1980 and 2000), which are more critical as well as more skeptical as to the possibilities of top-down interventions. (Maciel, 2001)

Case studies of successful systems do not indicate the construction of trust or of social capital as defined by most authors, but rather an increase in interaction and cooperation with specific objectives. What must be underlined here is that cooperation, social capital and trust are not synonymous.

Actually, what most examples show is that a combination of necessity, leadership and governance tends to activate processes of collective learning by interaction (Johnson and Lundvall, 2003), which frequently result in economic success and feed a “virtuous circle” of local socioeconomic development (Albagli and Maciel, 2003).

Social formations are complex structures that cannot be seen as mere products of planning strategies or policies, but which are the result of social construction in historical processes of collaboration, competition and conflict – in which public and private policies and strategies play an important role.

The focus therefore should not lie on the acquired and/or accumulated “stock” or “set” of useful knowledge, nor on pre-packaged programmes, recipes or models of local development but rather on the interaction which stimulates an expanded circulation of knowledge – that is, its democratization.

#### A few words on research design

In on-going research on local development, the main challenge has been that of designing the methodological approach and the empirical tools which might be capable of capturing, understanding and defining how knowledge flows in the interaction among local social actors (individuals and institutions). Building on recent experience, the issue of local development will be addressed from a methodological perspective which attempts to understand local knowledge flows in the social articulation of local systems of interaction, and taking as our prime criterion the results in terms of development, and not of competitiveness (which is the usual criterion of work done on local systems).

The (good) intentions frequently seen in the pertinent literature, which insists on measuring or quantifying in some way the flows of knowledge in local forms of face-to-face interaction, are usually ill-fated. Attempts to “translate” immaterial production and circulation into objects which can be counted and measured are inevitably forced to ignore its most essential characteristic – intangibility. This is why research must focus the relations involved in local interaction – which are the ‘channels’ through which knowledge flows – and not on quantities of ‘measurable’ knowledge.

A perspective based on the social sciences – especially sociology and anthropology – recommends the use of qualitative methods and techniques, which permit the least possible interference in the “immaterial” nature of the “object” being examined. A study of the nature and types of interaction between/among the social actors involved should demonstrate more directly the “know-who” learning which is defined as information about who knows what and who knows how to do what (Lundvall, 1996).

So, again inspired by Lundvall, the aim is to focus on the more important aspects of the activities involved in “learning by interacting”, such as the importance of “knowing who”, among others.

And invoking the perspective from the South, the process must take into account the complexity of developing countries as well as the relation between social change and development: the coexistence of

different modes of production; diversity of alternative logics; local cultural and historical identities; multi-cultural plurality; as well as educational, social, economic, regional and “digital” inequalities.

Research being currently carried out in the state of Rio de Janeiro (Albagli and Maciel, 2005) has thus focused, in the first phase, on identifying the individual and institutional social actors involved in local systems, beyond the usual industry-government-university triad. We are, for this reason, examining other organizations of civil society in order to understand how (and if) the knowledge shared in interaction is linked to local development. Also, in order to characterize local involvement with innovation and development efforts, other relations will also be considered, such as those of supporting institutions for technological development, formulators of public policies to foster technology-based firms, as well as their content.

The second phase will be centred on in-depth interviews with representatives from key institutions, firms and organizations representative of civil society, in order to understand and define the design of local interaction and characterize networks of knowledge flows in terms of intensity, frequency and density but also in terms of which agents are more active and have the most contacts within and outside the local system.

Finally, the map of interactions and knowledge flows will be confronted with the social structural dimension, socio-economic data on local development and perceptions of local cultural identities.

The results obtained will be the object of a comparative study in order to understand the unequal levels of development between different local systems in the same state. This should give – hopefully – some insight about the specific characteristics of local interaction which define unequal capacities for development.

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